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ORIGINAL ARTICLES.

A SERIES OF ONE HUNDRED AND TWELVE CONSECUTIVE OPERATIONS FOR OVARIAN AND PAROVARIAN CYSTOMA WITHOUT A DEATH.

BY LAWSON TAIT, F.R.C.S. ENG.

I HAVE already published a detailed statement of all my operations up to the end of December, 1883, and I bring forward the present series up to the 7th August, 1885, chiefly for the purpose of disposing, finally and for ever, so far as I am concerned, of the much-discussed question of Listerism in abdominal surgery. As I have repeatedly said in former publications, I tried the so-called antiseptic system in all its ever-varying details in as complete and unprejudiced a series of experiments as I believe it possible for man to undertake. I finally came to the conclusion that my patients were being poisoned by the use of carbolic acid, thymol, and various other chemical substances, which were being used by others as well as myself for the purpose of destroying the germs which were supposed to do so much harm. I published a series of cases which proved to my mind conclusively that I could do better without Listerism than with it, that in fact the only tendency of this so-called antiseptic system was to mar a success which was speedily increasing, and which arose from a variety of improvements, at the head of which was the discontinuance of the clamp.

In the practice of Sir Spencer Wells the introduction of Listerism and the introduction of the intraperitoneal method of dealing with the pedicle occurred almost at the same time, and it is not surprising that he should attribute his much-diminished mortality to Listerism rather than confess that he had retarded the advance of abdominal surgery for nearly a quarter of a century by his disregard of the lessons taught by Nathan Smith, Charles Clay, and Baker Browne.

Against my own conclusions there has been advanced more than once the argument that Dr. Keith had a long series of consecutive cases, seventy-two in number, whilst using Listerian methods. I now meet that argument by a still longer series of 112 consecutive cases, in not one of which has carbolic acid, or thymol, or corrosive sublimate, or any of the multifarious germicides, touched my patients either directly or indirectly. So far as I know, the present series has never been approached in its success, and as I have steadily reduced my mortality since I gave up the clamp from eight per cent. to six, five, and three per cent., till I have, as I may almost say, brought it to a vanishing point, I think my conclusions in previous papers are completely established. These conclusions were, in the main, that the great elements of my growing success were increased personal experience, increased attention to all the minute details

which go to create success, and inattention to any one of which may defeat the best-laid plans. In addition to these, I may add scrupulous attention to cleanliness and an undeviating enforcement of discipline, both on the part of the patients and my staff of assistants.

The present series may be analyzed as follows:

Dermoid cyst	1
Cystic sarcoma	1
Abscess of ovary	2
Cystoma of one ovary	49
Cystoma of both ovaries	38
Parovarian cysts	21

Of this analysis very little need be said, except that it completely confirms my previous statement that removal of both ovaries for cystoma is not in any way a more serious operation than removal of one. It will be remembered that Sir Spencer Wells has always insisted that the contrary was the case, and it certainly was so in the cases where he used the clamp, another of the many arguments that the clamp, and that alone, was the cause of his tremendous mortality. In these eighty-nine cases of ovarian cystoma every kind of difficulty has been met with. The tumors have been in many instances of enormous size, and every variety and extent of adhesion has occurred; but neither size, nor extent, nor nature of adhesion seems now to make the slightest difference in the results of the operation. In every case where there has been a tendency to ooze, or where the patient has been advanced in life, I have used the drainage-tube, an addition to our means of saving life of which it is impossible to speak too highly. In every case but two the Staffordshire knot has been the means used for securing the pedicle, and here again is an improvement to which my success must be largely attributed: it never slips: I have had no trouble with secondary hemorrhage, and there have been no subsequent suppurations in the pelvis. In the two cases where the Staffordshire knot was not used, no kind of method of securing the pedicle was found to be of any avail, except securing it by a number of pressure-forceps, and leaving them in the pelvis, protruding through the wound for some forty hours after the operation, when they were cautiously removed one by one.

Of the parovarian cysts I can only say that the removal of many of them presented perfect simplicity in every detail, whilst the removal of others might be reckoned amongst the most ghastly and serious operations with which anyone could meet. The main difficulty in these operations consists of this, that the cysts having lifted the structures in the broad ligament bodily out of the pelvis, the tumors therefore not only present no pedicle, but present no free surface of any kind, and they have to be dealt with entirely by the method of enucleation originally devised by Dr. Miner. These cases, until 1876, would all have

No	Residence.	Medical Attendant.	Age.	M. or S.	Disease.	Operation.	Date.	Remarks.
1	Tamworth	Dr. Fausset	26	M.	Cystoma	Left ovary	1884. 3 i.	
2	Newport (Mon.)	Dr. James	56	M.	Cystoma	Right ovary	5 i.	
3	Birmingham	Dr. Smith	37	M.	Paro. cyst	Removed	7 i.	
4	Birmingham	L. T.	53	M.	Cystoma	Right ovary	10 i.	
5	Smethwick	Dr. Annie Clarke	32	M.	Cystoma	Right ovary	12 i.	
6	Birmingham	L. T.	55	M.	Cystoma	Right ovary	15 i.	
7	Stafford	Mr. Weston	31	S.	Dermoid cyst	Right ovary	18 i.	
8	Hexham	Dr. Farmer	30	M.	Abscess of ovary	Right ovary	18 i.	
9	Oswestry	Dr. Beresford	54	M.	Paro. cyst	Removed	19 i.	
10	Birmingham	L. T.	40	M.	Cystoma	Right ovary	2 ii.	
11	Birmingham	Dr. Sawyer	59	M.	Cystoma	Right ovary	14 ii.	
12	Rilston	Dr. Larkin	35	M.	Cystoma	Left ovary	14 ii.	
13	Rugby	Dr. T. Duke	33	S.	Cystoma	Both ovaries	28 ii.	
14	Birmingham	Dr. Simon	30	M.	Cystoma	Left ovary	10 iii.	
15	Birmingham	Dr. Craig	37	M.	Paro. cyst	Removed	12 iii.	
16	Birmingham	L. T.	32	S.	Paro. cyst	Removed	43 iii.	
17	Birmingham	Mr. Newton	34	M.	Cystoma	Right ovary	13 iii.	
18	Aston	L. T.			Cystoma	Both ovaries	20 iii.	
19	Luton	Dr. Evans	18	S.	Paro. cyst	Removed	21 iii.	
20	Birmingham	Mr. Pugh	27	S.	Cystoma	Left ovary	26 iii.	
21	Birmingham	Dr. Ward	29	M.	Cystoma	Both ovaries	27 iii.	
22	Birmingham	Dr. Hugh Thomas	45	M.	Cystoma	Right ovary	3 iv.	
23	Wolverhampton	L. T.	63	M.	Cystoma	Left ovary	10 iv.	
24	Birmingham	Mr. Briggs	22	M.	Cystoma	Right ovary	26 iv.	Rotated and gangrenous.
25	Nottingham	Mr. Evan Smith	35	M.	Paro. cyst	Removed	3 v.	Rotated and gangrenous.
26	Birmingham	Mr. Harmer	22	S.	Cystoma	Both ovaries	3 v.	
27	Birmingham	Mr. Palmer	42	M.	Cystoma	Right ovary	6 v.	
28	Derby	Dr. Bedford	57	M.	Cystoma	Left ovary	8 v.	
29	Kidderminster	Dr. Colbourn	27	S.	Cystoma	Left ovary	9 v.	
30	Manchester	Dr. Handford	23	S.	Cystoma	Left ovary	12 v.	
31	Birmingham	Mr. F. Hopkins	40	M.	Cystoma	Right ovary	13 v.	Rotated and gangrenous.
32	West Bromwich	L. T.	51	M.	Cystoma	Right ovary	13 v.	
33	Birmingham	L. T.	43	M.	Cystoma	Left ovary	16 v.	
34	Leamington	Dr. Wyer	29	S.	Cystoma	Both ovaries	24 v.	
35	Llantrissant	Dr. Davies	48	M.	Paro. cyst	Removed right side	26 v.	Rotated and gangrenous.
36	Bridgnorth	Dr. Thursfield	46	M.	Cystoma	Both ovaries	26 v.	
37	Aston	Mr. Whitcombe	34	S.	Paro. cyst	Removed right side	27 v.	Rotated and gangrenous
38	Ross	Mr. Norman	44	M.	Cystoma	Both ovaries	3 vi.	
39	Walsall	Dr. Sharpe	42	M.	Cystoma	Both ovaries	12 vi.	
40	Birmingham	L. T.	36	M.	Cystoma	Both ovaries	16 vi.	
41	Leamington	Dr. Smith	64	M.	Cystoma	Both ovaries	20 vi.	
42	Pershore	L. T.	28	S.	Cystoma	Left ovary	21 vi.	
43	Birmingham	L. T.	22	S.	Cystoma	Both ovaries	27 vi.	
44	Oswestry	Dr. Aylmer Lewis	33	M.	Cystoma	Both ovaries	29 vi.	
45	Birmingham	L. T.	42	M.	Cystoma	Both ovaries	2 vii.	
46	Coventry	Dr. Fenton	29	S.	Paro. cyst	Removed	3 vii.	
47	Leamington	Mr. Morris	27	M.	Cystoma	Right ovary	4 vii.	
48	Birmingham	Mr. Gilbert Smith	43	M.	Cystoma	Both ovaries	7 vii.	
49	Wrexham	Dr. Davies	20	S.	Cystoma	Right ovary	21 vii.	
50	Stonehouse	Dr. Watters	51	M.	Cystoma	Left ovary	22 vii.	
51	Wolverhampton	Dr. Lycett	45	M.	Cystoma	Both ovaries	22 vii.	
52	Kidderminster	Dr. Waddell	43	M.	Cystoma	Both ovaries	26 vii.	
53	Birmingham	Dr. Haynes	26	M.	Cystoma	Both ovaries	28 vii.	
54	Birmingham	Mr. Lawrence	22	S.	Cystoma	Left ovary	29 vii.	
55	Oldham	Dr. Stanfield	38	M.	Cystoma	Both ovaries	10 viii.	
56	Coventry	Dr. Handford	37	S.	Cystoma	Left ovary	10 x.	
57	Stourbridge	L. T.	35	S.	Cystoma	Right ovary	13 x.	
58	Birmingham	Dr. Hoare	27	M.	Cystoma	Both ovaries	17 x.	
59	Birmingham	Mr. Harmar	29	M.	Paro. cyst	Removed	20 x.	
60	Birmingham	Dr. Kenny	28	M.	Cystoma	Both ovaries	23 x.	
61	Birmingham	Dr. Hadley	41	M.	Cystoma	Both ovaries	23 x.	
62	Birmingham	L. T.	24	S.	Paro. cyst	Removed	31 x.	
63	Birmingham	Dr. Thomas	28	M.	Paro. cyst	Removed	31 x.	
64	Birmingham	Mr. Green	50	M.	Cystoma	Left ovary	10 xi.	
65	Kidderminster	Dr. Langford	63	M.	Cystoma	Right ovary	20 xi.	
66	Tipton	Dr. Price	32	S.	Cystoma	Both ovaries	23 xi.	
67	Southport	Dr. Craven	26	S.	Cystoma	Both ovaries	29 xi.	
68	Birmingham	L. T.	27	M.	Cystoma	Both ovaries	20 xii.	
69	Birmingham	L. T.	28	S.	Cystoma	Both ovaries	23 xii.	
70	Birmingham	Mr. Lloyd	32	M.	Cystoma	Left ovary	1885. 6 i.	
71	Nottingham	Dr. Elder	59	M.	Cystoma	Left ovary	8 i.	
72	Birmingham	Mr. Harmar	30	S.	Cystoma	Left ovary	17 i.	
73	Derby	Mr. Taylor	40	M.	Paro. cyst	Removed	23 i.	
74	Wellington	Dr. Glissan	29	S.	Cystoma	Both ovaries	3 ii.	
75	Melbourne	Dr. Elder	34	S.	Cystoma	Left ovary	7 ii.	
76	Leamington	Dr. Tomkins	70	S.	Cystoma	Both ovaries	11 ii.	
77	Harrogate	Dr. Myrtle	25	S.	Paro. cyst	Removed	16 ii.	
78	Birmingham	L. T.	32	S.	Cystoma	Both ovaries	19 ii.	
79	Monmouth	Dr. Wollett	16	S.	Paro. cyst	Removed	2 iii.	
80	Wolstanton	Dr. Massingham	60	M.	Cystoma	Right ovary	27 iii.	

No.	Residence.	Medical Attendant.	Age	M. or S.	Disease.	Operation.	Date.	Remarks.
81	Evesham	Dr. Blake	34	S.	Cystoma	Both ovaries	14 iv.	
82	Leamington	Dr. Jay	30	S.	Cystoma	Right ovary	17 iv.	
83	Birmingham	Dr. Hoffman	30	M.	Cystoma	Both ovaries	18 iv.	
84	Burton-on-Trent	Dr. Clements	23	S.	Cystoma	Right ovary	23 iv.	
85	Ashby-de-la-Zouch	Dr. Williams	23	M.	Abscess of ovary	Right removed	24 iv.	
86	Birmingham	Mr. Leach	40	M.	Cystoma	Both ovaries	28 iv.	
87	Leamington	Dr. Whitby	43	S.	Cystoma	Right ovary	2 v.	Rotated and gangrenous.
88	Ashby-de-la-Zouch	Dr. Betts	33	M.	Cystoma	Both ovaries	14 v.	
89	Birmingham	L. T.	35	M.	Cystoma	Both ovaries	15 v.	
90	Birmingham	Dr. Malins	25	M.	Paro. cyst	Removed	15 v.	
91	Ludlow	Mr. Brooks	44	M.	Cystoma	Right ovary	26 v.	
92	Willenhall	Mr. Hartill	26	S.	Cystoma	Right ovary	29 v.	Rotated and gangrenous.
93	Bridgnorth	Mr. Rhodes	43	M.	Cystoma	Both ovaries	5 vi.	
94	Birmingham	Dr. Parkes	25	M.	Cystoma	Right ovary	9 vi.	Rotated and gangrenous.
95	Birmingham	L. T.	27	M.	Cystoma	Both ovaries	16 vi.	
96	Birmingham	Mr. Nicholls	24	M.	Cystoma	Both ovaries	20 vi.	
97	Burton-on-Trent	Dr. Hooper	25	M.	Cystoma	Both ovaries	21 vi.	
98	Birmingham	Mr. Hallwright	34	M.	Cystoma	Right ovary	22 vi.	Rotated and gangrenous.
99	Birmingham	Dr. Parkes	23	S.	Cystoma	Both ovaries	3 vii.	
100	Thirsk	Dr. Hartley	53	M.	Paro. cyst	Enucleated	14 vii.	
101	Stourbridge	Dr. Pearson	14	S.	Cystoma	Left ovary	18 vii.	
102	Birmingham	Dr. Phillips	34	M.	Abscess of ovary	Right removed	20 vii.	
103	Birmingham	Dr. Shillito	40	M.	Paro. cyst	Removed	20 vii.	Rotated and gangrenous.
104	Rugeley	Mr. Freer	50	S.	Cystic sarcoma	Right ovary	21 vii.	
105	Birmingham	Mr. Marriott	36	M.	Paro. cyst	Removed	23 vii.	
106	Shrewsbury	Dr. Rigby	36	M.	Cystoma	Left ovary	25 vii.	
107	Cheltenham	Mr. Cocks Johnson	25	S.	Cystoma	Both ovaries	25 vii.	
108	Birmingham	L. T.	31	M.	Paro. cyst	Enucleated	26 vii.	
109	Birmingham	Dr. Fitch	19	S.	Cystoma	Right ovary	28 vii.	
110	Birmingham	Dr. Hollinshead	46	M.	Cystoma	Right ovary	4 viii.	
111	Hereford	Mr. Turner	31	S.	Cystoma	Right ovary	4 viii.	
112	Birmingham	Dr. Notley	47	S.	Paro. cyst	Enucleated	7 viii.	

been recorded as incomplete operations, for what used to be done both by myself and by others was to remove about a quarter of the cyst and stitch the stump to the wound, trusting to it healing by supuration and granulation. But to my sorrow I found that these cases did not heal, that they went on suppurating for months and years, and finally died. Now I completely enucleate the cysts, regardless of the extent or nature of adhesions, and have done so without failure in any instance, taking the cyst out of the pelvis from intimate association with every organ in it. The operations are tedious and difficult, and the bleeding is sometimes most profuse, but sponge packing, and occasional touch of the cautery, and the drainage-tube, have given me success in every instance. The cavities in which the tumors were set have all completely healed, and not a single sinus remains in any of my patients.

Parovarian cysts have a peculiar tendency to rotate on their axis, and to become strangulated and gangrenous. This complication leads to acute peritonitis, and the patients, if not relieved by immediate operation, die. In the present series there have been ten cases of these rotated and gangrenous tumors, and without a single exception they have grown from the right side and have been rotated from the left side forwards into the right. This completely establishes the theoretical explanation of the axial rotation of ovarian and parovarian tumors, which I advanced in 1880 in a paper read before the Obstetrical Society. So extensive now has been my experience of this peculiar complication, that in one case (94) I actually made the diagnosis without seeing the patient under the following circumstances. Feeling rather out of sorts one evening I had gone to bed unusually early, and after having retired I was aroused by my friend

Dr. Parkes, who came to tell me of a case in which he wanted my assistance and of which he gave me the following brief history. The patient had been confined about three weeks before and had made a perfectly easy and rapid recovery, but about fourteen days after her confinement she drew Dr. Parkes's attention to a lump just above the pelvis, and this he thought was the uterus in a condition of subinvolution, and regarded it as of no moment; but, very much to his surprise, in three or four days it was very much larger, and on the morning of his seeking my assistance the patient was suddenly attacked by violent pain, and he found the tumor as big as an adult's head above the brim of the pelvis. I told him that there could be no doubt that it was an instance of an ovarian tumor growing with great rapidity after confinement, as I had seen occur in many instances, and that it had rotated on its axis and was becoming gangrenous. I agreed to see the patient with him the next morning early. The acute symptoms had somewhat subsided by the time I saw her, but the tumor, Dr. Parkes assured me, was quite one-third larger than it had been the previous day. There could be no doubt that the diagnosis which I had given the preceding evening was the correct one, and we at once removed the patient from her home to my private hospital. I opened the abdomen within three hours of her arrival, and found the tumor to be the right ovary with a pedicle twisted nearly three revolutions, the tumor quite black and semi-gangrenous, and the contents of its cavity consisting of at least three parts blood.

Of the subsequent history of these patients, remarks need only be made upon two. One (76) was an old lady aged seventy, from whom I removed a rapidly growing tumor of immense size. I had a suspicion

at the time of the operation that there was something more the matter with her than the tumor, and although she made a wonderful convalescence considering her advanced age, and got about for some time after the operation, she died suddenly shortly after her return home, without any symptoms which could be definitely referred to a specific ailment. After death she was found to be suffering from an abscess of the liver. The other (41) is now suffering from general papilloma of the peritoneum, has become dropsical, and of course will die in the course of a few months.

Only one other point requires notice, and that is, that during the time occupied by the performance of this series—that is, from the 1st January, 1884, to the 7th August, 1885—I have not left incomplete any operation begun for ovarian or parovarian cystoma, and this is to me the most satisfactory fact in the history of the series.

AN OPERATION WITH A DOUBLE NEEDLE, OR BIDENT, FOR THE REMOVAL OF A CRYSTALLINE LENS DISLOCATED INTO THE VITREOUS CHAMBER.

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To remove a dislocated lens from the anterior chamber of the eye is difficult, and to remove one from the vitreous chamber and save the integrity of the organ is perilous, and more difficult than any other operation in ophthalmic surgery. Excellent authorities therefore agree in recommending, in many cases, the practice of enucleation rather than to incur the immediate and later risks of attempted removal of dislocated crystalline lenses.

In numerous cases of dislocated lens the aqueous and vitreous humors are altered in their physical condition, being commingled or degenerated. When that is so, the instant that an opening is made for introducing a scoop, or other instrument, to extract the misplaced and mobile lens, there is a quick loss of the fluid contents of the eye. The eye wall falls in, the cornea crumples, and the lens eluding the instrument used for its removal, sinks into the vitreous chamber. If detachment of the retina or choroid with hemorrhage does not immediately occur, great violence is done by the operator in prodding after the lens. If the lens be finally extracted, secondary consequences occur, which cause the wounded eye to be very irritable and prone to become the focus of sympathetic trouble for the fellow eye. To avoid so direful a sequel, cautious operators have preferred to enucleate the eyeball in which there is a misplaced lens, instead of attempting to extract. This conclusion, reached by so many, has no doubt been furthered by the difficulties attending the fixation and subsequent extraction of the dislocated lens with the least loss of the fluid contents of the eye, and with the least traumatism.

Having had many cases of dislocated lens in the thirty years of my public and private work, I had come to look upon them as very embarrassing. I had also had occasion to know from actual trial, and with

a fair amount of dexterity, the difficulties attending all the proposed methods for the removal of the offending body. Considering the alternative of enucleation, I could not help remembering that, easy as the mechanical part of that procedure is for the merest tyro in ophthalmic surgery, it is not without grave drawbacks for its subjects. A quiet, sightless eyeball, unless so enlarged as to be monstrous and a conspicuous deformity, is far better than the best fitting artificial eye. Furthermore, the history of the sockets left by entire enucleation is not, by any means, one of unbroken satisfaction. Enucleation is always a serious mutilation, and, like an amputation, should never be done if any other less radical procedure is practicable and prudent. I cautiously dissent from the doctrine, that, inasmuch as danger to a fellow eye may possibly occur at a more or less remote epoch in cases supposed to resemble those in which sympathetic trouble has been known to happen, therefore, we should always enucleate in a case in which sympathetic disease may possibly result. A considerable, and probably an increasing, number of cases in which sympathetic disease is not present, may be safely treated upon the expectant plan, or by surgical procedures in which less than the entire eyeball is sacrificed.

Believing that the impossibility of removing dislocated lenses, in some cases, without inflicting upon the eye destructive violence, had induced surgeons to resort to enucleation, it occurred to me to attempt so to modify the existing methods as to lessen what seemed to me to be the greatest difficulty, namely, to secure fixation of the lens in an accessible place, till a corneal wound had been made sufficient for its removal; and, in addition, to use the lens by means of the instrument of fixation, so as to plug the pupil more or less closely and retard the efflux of the fluids of the eye to as late a moment as possible in the manoeuvre. If this is attempted by the use of a single needle, it may not be possible to raise the lens, if it be submerged in the vitreous humor. If it be raised, it may not be possible to prevent its falling over the needle and becoming again submerged, thus provoking the operator to dip his instrument again and again in the depths of the eye, to the injury of the tissues through which it penetrates or is swept. If the single needle is so used as to lift the lens and hold it near enough to the anterior chamber to be easily accessible after corneal section, its handle must be intrusted to an assistant, and thus it happens that two operators are acting in some of the steps of the operation without the indispensable benefit of accurate and unflinching coöperation. It is much better in those surgical manoeuvres in which the quality of the result must depend greatly upon the harmony of consecutive steps that one will should be in control. This rule holds, however skilful and accordant the assistant may be.

Influenced, then, by the two foregoing considerations, among others, I devised the double needle, or bident, which is shown in the illustrations which accompany the narrative of the following case.

I. M., æt. 27, has been blind in his right eye from earliest infancy. The form and general appearance of the exterior of the organ are normal. Its iris is

tremulous, the pupil contractile, and somewhat more dilated than that of the fellow eye. Its crystalline lens is of full size, or nearly so, opaque and mottled, as from beginning calcific degeneration. The lens is also so loose that it moves to and fro with a quick, volatile motion, though suspended, on the temporal side, by a narrow, hinge-like attachment of the suspensory ligament. When the patient throws his head back the lens is snatched out of the direct view of the observer, but may be seen by oblique inspection in the temporo-ciliary region. The eye is sometimes irritable, but seldom, if ever, reddened, and there is constantly present a sense of something in motion in the eye.

The patient is painfully conscious of the startling deformity which the perpetual appearance and disappearance of the white lens in a dark pupil produces on every motion of the eye and head. For some time the fellow eye has also engaged his attention, partly because its endurance seemed to be lessened, and partly because apprehension has arisen lest sympathetic disease might make an insidious invasion. Although, for many years intolerant of the idea of any operative interference, he has at last become convinced that he cannot much longer endure the irksomeness of his condition, and the dangers which threaten the faulty organ. The vision of his well eye is $\frac{2}{3}$, that of the fellow eye = 0.

Several surgeons had examined the case, and more recently, at my suggestion, he sought the advice of a most eminent colleague in New York. The latter advised that the troublesome eye should be enucleated, instead of any attempt being made to remove the dislocated lens. In this the patient would not acquiesce. He therefore went to his home, in a distant city, but almost immediately returned again to New York, as the eye seemed to be worse, and sympathy in its fellow more noticeable.

After explaining that my attempts to remove the lens might fail, and that it might be expedient, during the course of such an operation, to resort to immediate enucleation, the patient left the matter entirely in my hands.

Believing that the ordinary methods for the removal of a lens dislocated into the vitreous humor would fail, I devised the procedure which is now offered for consideration. I dilated the pupil with atropia, but could not produce as wide dilatation as might have been expected in a normal eye. I then placed the patient on his back in charge of the following medical colleagues: Drs. Webster, Coleman, Beard, and Ring, requesting them to keep his head as immovable as possible, to avoid the complete detachment of the lens. We then gave ether as thoroughly as possible. Observing that the eye retained some sensibility even after the breathing of the patient had become stertorous, and wishing to have analgesia of the organ, we instilled a few drops of four per cent. solution of hydrochlorate of cocaine upon the conjunctival surface. I next opened the eyelids with a Gräfe's speculum, and fixed the eye by grasping the tissues between the insertion of the inferior rectus and the margin of the cornea with ordinary fixation forceps. Looking in through the pupil we could just discern the dislocated lens lying far to the temporal side

of the vitreous chamber in the ciliary region. I now brought into use the little appliance with which we hoped to facilitate the removal of the lens. The instrument, with its handle, a Sands's needle-holder, is delineated in the first illustration.

FIG. 1.



It consists of two ordinary, fine, straight, delicately pointed, cataract needles, about six-eighths of an inch long, fixed parallel at a distance a little less than an eighth of an inch apart. These needles are united at their proximal ends by a projection which is flat, and otherwise so shaped and roughened as to be adapted to the grasp of the beak of a holder, such as that known in the shops as Sands's needle-holder. Although averse to laying any claim whatever as an inventor of new instruments, I may, perhaps, venture to call the needles a bident.

Having mounted the bident in the holder with the thumb catch of the latter uppermost, and having the eyeball firmly fixed as previously stated, I penetrated the temporal aspect of the eyeball at a point just far enough back to enter the vitreous chamber without wounding the iris, or touching the dislocated lens, till the bident had penetrated the vitreous humor to a point a little to the temporal side of its centre. I then, by depressing the handle of the holder, caused the points of the bident to describe an arc forwards. I was greatly pleased to see the lens caught on the bident—as a pea might be lifted on a two-tine fork, and brought forward through the pupil into the anterior chamber. I then pushed the bident on and caused its points to emerge on the nasal side of the eyeball close behind, but avoiding the iris.

The neat completion of the wound of exit was insured by placing the end of the forefinger of my left hand upon the surface of the eyeball at the point to which I was directing the bident. In this manner the scleral conjunctiva being pressed upon the points of the bident they were passed so quickly through the subconjunctival space after penetrating the sclerotic as not to let any fluid flow into and distend the subconjunctival connective tissue. The holder was then detached from the bident, and the lens remained free upon its prongs and pressed against the cornea, as shown in the second illustration.

With a narrow Gräfe's knife I then made a sufficient wound in a downward direction in the cornea, and easily completed the delivery of the lens with a delicate wire or skeleton spoon. Under similar circumstances I might probably deliver the lens by a partial withdrawal of the bident and dispense with the use of the spoon.

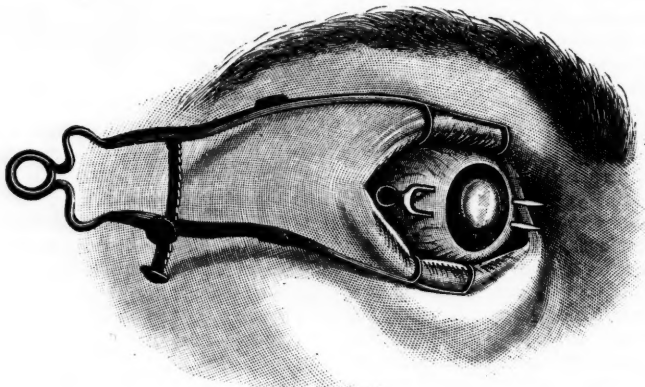
I then removed the bident with the holder. Although this was done without difficulty, I would prefer, under similar circumstances, to do it with my thumb and forefinger, as being quite easy, and thus avoiding the necessity of applying the holder a second time. Not applying the holder would cut

off one movement from the manœuvre. There was scarcely any appreciable escape of fluid, as the lens seemed to plug the pupil, and on its delivery the bident was instantly removed. The corneal wound fell into neat coaptation, and there was no prolapse of iris.

of every known surgical procedure. I do not think I could have met the indications with any of the methods previously in use.

That the method is applicable to all cases of dislocated lens, especially those in which the lens is in the anterior chamber, I do not claim. It is even

FIG. 2.



I then closed both eyes, greased the surface of the eyelids with white vaseline, applied light compresses of absorbent cotton, a thin flannel bandage, and over all a black silk mask. The patient was placed in bed on his back, and much motion and all forms of excitement forbidden.

For two days the dressings were not removed. At the end of that time they were removed, the entire surface of the eyelids washed with warm solution of hydrarg. bichloride, one to two thousand, and some of the same solution allowed to penetrate the palpebral slit. As the eye was somewhat painful and redened, a drop or two of a two per cent. solution of sulphate of atropia and of a four per cent. solution of hydrochlorate of cocaine was also instilled, and the dressings reapplied. Such was the course pursued.

The recovery was continuous and uneventful. The operation was done November 13, 1884, and the cure was complete December 1, 1884. The pupil remained responsive to light. It had become a little drawn in the direction of the corneal wound, though contractile and not adherent.

As the eye had been quite blind from infancy, no vision was expected after the operation. Subsequent ophthalmoscopic examination revealed extensive plaques of old choroidal and retinal atrophy, with complete atrophy of the optic nerve, lesions antecedent to or soon following birth.

January, 1885.—Patient has been again under observation for an affection of the ear. The eye is well, and the result in every way satisfactory to the patient, to my friend, Dr. Webster, and to myself.

It may be said that the lens might have been removed by using a large spoon through a section of the cornea with or without iridectomy. That with other methods was considered and dismissed as impracticable. I had had the case under observation for more than seven years, and studied it in the light

possible that it may be relegated, after further trial, to the list of the curiosities of ophthalmic surgery. The method of inserting a single needle, or a bident, by means of a detachable needle-holder, may prove of value in certain cases of foreign body in the chambers of the eye. I recall cases of other foreign bodies than dislocated lenses, in which I would have got valuable aid from it.

DISINFECTANTS.

PRELIMINARY REPORTS OF THE COMMITTEE ON DISINFECTANTS OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

XVII.

SULPHITES.

BY GEORGE M. STERNBERG, M.D.,
SURGEON U. S. ARMY.

SODIUM SULPHITE AND SODIUM HYPOSULPHITE.

My experiments made at San Francisco (*American Journal of the Medical Sciences*, April, 1883) show that these salts in concentrated solution have no germicide power. The micrococcus of pus was not killed by exposure for two hours to a thirty-two per cent. solution, and a saturated solution failed to destroy the bacteria in broken-down beef-tea. Arloing, Cornevin, and Thomas found that exposure for forty-eight hours to a fifty per cent. solution of sodium hyposulphite does not destroy the virus of symptomatic anthrax. It is evident, from the experimental evidence on record, that these salts have no value, either as germicides or as antiseptics, *except in the presence of some chemical agent which will liberate the sulphurous acid.*

BISULPHITE OF LIME, BISULPHITE OF ZINC, BISULPHITE OF SODA, TERSULPHITE OF ALUMINIUM.

A manufacturing chemist of New York sent me, last spring, samples of the above-mentioned salts in solution, and I made a number of tests to determine their comparative germicide power. The results obtained indicate that their value as disinfectants depends upon the amount of sulphurous acid which they contain. All of the solutions gave off sulphurous acid gas constantly when not kept in tightly corked bottles; and, in adding them to broken-down beef-stock, an abundant liberation of this gas occurred.

The solution of bisulphite of lime gave the best results. In the proportion of five per cent. this destroyed the vitality of *M. tetragenus*, the test organism employed. The solution of bisulphite of zinc and tersulphite of aluminium failed to destroy the same micrococcus in the proportion of five per cent., but were successful in ten per cent. The solution of bisulphite of soda failed upon the same organism in ten per cent. I have lost my memorandum giving the specific gravity of these solutions, but believe them to have been saturated solutions of the salts named.

XVIII.

THE COMPARATIVE ANTISEPTIC VALUE OF THE SALTS AND OXIDES OF MERCURY.

BY GEORGE M. STERNBERG, M.D.,
SURGEON U. S. ARMY.

In the introduction to this series of preliminary reports the statement is made that "a complete investigation of both disinfectants and antiseptics being impracticable in the time and with the resources at command, the Committee decided upon so far departing from the letter of the resolutions of Dr. Hibberd as to limit its inquiry altogether to disinfectants, and to omit all investigations into the action of antiseptics."¹

The present article is the result of a departure from this rule which the writer has made with reference to the salts and oxides of mercury, because of the special interest which they have from a therapeutic point of view, and because of the important indications which seem to be furnished by their antiseptic power for restricting the development of pathogenic organisms in the alimentary canal, as well as in masses of decomposing organic material which might serve as pabulum for disease germs external to the body.

With the assistance of Dr. Abbot, I have recently made a series of experiments, the results of which are given in the following table:

	Active.	Failed.
Binioidide of mercury	1 : 20,000	1 : 40,000
Bichloride "	1 : 15,000	1 : 20,000
Protiodide "	1 : 10,000	1 : 20,000
Yellow oxide "	1 : 1,000	1 : 2,000
Black oxide "	1 : 500	1 : 1,000
Calomel		1 : 100
Blue mass		1 : 100

In every case the antiseptic was carefully weighed and added to 100 cc. of beef peptone solution, or of veal broth. A similar quantity of the culture fluid was put up as a *témoin* without the addition of the antiseptic. As the oxides and iodides of mercury are insoluble in water, the bottle was repeatedly shaken in order to dissolve in the albuminous culture fluid as much of the antiseptic as possible. An undissolved remnant could, however, be recognized at the bottom of the bottle after this repeated shaking. Two drops of broken-down beef-stock were added to each bottle to cause speedy putrefaction of the culture fluid in the absence of a sufficiently potent inhibition of the developing power of the bacteria of putrefaction. In every case in the comparative experiment the culture fluid became clouded, and had a putrefactive odor at the end of twenty-four hours.

The first column in our table shows the proportion in which the culture fluid was preserved from any appearance of decomposition for at least a week, the duration of the experiment. In the proportion given in the second column a decided inhibiting power was shown, except in the case of calomel and blue mass, which, in the proportion given (1 : 100), gave no evidence of antiseptic power. The other salts and oxides in the list prevented decomposition for twenty-four hours in the proportion given in the second column; and it was not until the second day that the bacteria of putrefaction commenced to form a cloud at the upper surface of the fluid, which gradually extended until the fluid had entirely broken down, usually by the third or fourth day. The bottles containing the binioidide (1 : 20,000), and the bichloride (1 : 15,000) have now been standing in the laboratory for three weeks, and are as transparent and free from odor as the day they were put up. These results agree with those reported by Miquel.

So far as I know, the antiseptic value of the protiodide and of the oxides of mercury has not heretofore been determined. I shall refrain at present from making any remarks upon the therapeutic possibilities which these figures suggest, or upon the possible explanation of the *modus operandi* of the protiodide, given daily for many months in the cure of syphilis, or of the use of yellow oxide as a remedy for septic fermentation in the alimentary canal. The still greater inhibiting power of mercuric chloride for the spores of *B. anthracis* has already been referred to in my paper published in THE MEDICAL NEWS of February 21st, p. 206.

The following simple experiment may, perhaps, serve to explain the demonstrated value of calomel as an "alterative" in bowel complaints attended with offensive discharges: If a little calomel is shaken up in a test-tube with putrid beef-tea, a black precipitate is thrown down. I have made no attempt to examine this black precipitate chemically, but it can scarcely be anything else than the black oxide of mercury, which my recent experiments show has decided antiseptic power when present in putrescible material in the proportion of 1 : 1000, and entirely prevents the putrefactive decomposition of beef peptone solution in 1 : 500.

¹ THE MEDICAL NEWS, January 24, 1885, p. 87.

HOSPITAL NOTES.

THE CLINIC FOR NERVOUS AND MENTAL DISEASES, BERLIN.

A CASE OF TABES DORSALIS, COMPLICATED WITH PROGRESSIVE MUSCULAR ATROPHY.

Service of DR. MENDEL.

Reported by F. HERBERT HACKER, M.D.,
of Charleston, S. C.

THE patient, who is a shoemaker, 37 years of age, claims to have enjoyed good health, with the exception of the usual diseases of childhood, up to the development of his present disease. Excesses in wine or venery are positively denied. Patient was actively engaged in the Franco-Prussian war, and began to suffer in 1873, from attacks of severe pains in limbs and back, as also from a feeling of constriction over thorax and abdomen; these latter pains he describes as having been of peculiar severity.

He ascribes these symptoms to exposure during the campaign, and he took them at the time for rheumatism. In 1874 the patient noticed that the muscular power of his lower extremities began to diminish; he also began in this year to suffer from severe attacks of what he calls "indigestion," complicated with severe pains in the head. He complains now of urinary trouble—dysuria. The patellar phenomenon is absent; the pupils do not react to changes of light. Paræsthesia seems, however, not to be present. Patient exhibits well-marked ataxia in his gait.

In this case the diagnosis is extraordinarily easy. The gradual inception with rheumatoid pains, the constricted feeling over breast and abdomen (which are almost pathognomonic of the disease in question, and are but rarely absent), the attacks of so-called indigestion, the absence of the reflex movement on percussion over the tendon of the quadriceps, and the ataxic gait, point with positive certainty to but one disease, viz., *tabes dorsalis*, or, as it is sometimes called, *progressive locomotor ataxia*, a disease which has its seat in the posterior columns of the cord, and which usually produces finally sclerotic changes of these columns. The attacks of "indigestion," of which the patient complains, are nothing more nor less than what is so often observed in this clinic, and known under the name of *crises gastriques*. They are very frequent in the course of tabes, and are best treated—as they depend, not on local causes in the stomach itself, but on destructive changes in the nervous centres—with minute doses of morphine; medicines directed against the "indigestion," as such, are useless.

So far everything is quite clear and simple, but on causing the patient to remove his clothing, and examining him more closely, we see other changes which are not so easily explained. First we notice that the muscular system, as a whole, is but weakly developed, and that certain muscles are atrophied to a considerable extent. The rotundity of the left shoulder is entirely gone, owing to excessive atrophy of the deltoid muscle on that side; on the right side this change is not present; on both sides the infraspinati muscles are very much atrophied; the right serratus magnus is so far gone that the flat of the hand can easily be inserted between

thorax and scapula; both nates are sunken in from disappearance of the gluteal muscles, so that in place of the normal rotundity of the parts, there are two large hollows, or depressions, on each side. The muscles of the head and tongue are intact. These changes, the patient tells us, have come on gradually, and are progressive in character. Such progressive *atrophia musculorum* may be owing to one of five causes, and we shall endeavor to find out the one which is at work in our present case:

1. It may result from disuse and inactivity of the affected muscles.
2. It may be produced by peripheral neuritis, in which case other changes and symptoms are also present.
3. It may be owing to peripheral disease, as in *pseudohypertrophia musculorum*.
4. It may be consecutive to inflammatory diseases of the articulations.
5. It may be produced by diseases of the central nervous system, more especially by disease of the anterior cornua of the gray matter of the cord, *poliomyelitis anterior*, which may occur either as an acute or as a chronic affection; the acute form constituting the anatomical basis of the so-called "essential infantile paralysis" of Rilliet and Barthez, the chronic form producing the true "progressive muscular atrophy."

In our case there can be no doubt that neither of the first four causes is at all applicable; the patient has always been engaged in active muscular work, which has kept nearly the entire muscular system at work, nor is the atrophy evenly distributed; he has never suffered from neuritis nor from inflammatory joint affections, so that the first three causes can be excluded, and as the atrophy from which he suffers is not accompanied by a corresponding hypertrophy, we may also exclude the fourth case; we can, therefore, have not the slightest doubt that, in addition to the gray degeneration of the posterior columns of the cord, there is a participation in the process of the anterior horns of the gray matter. This is rather a rare complication of tabes, and while changes in the joints have been frequently observed, such changes in the muscular system are of exceedingly rare occurrence. Only day before yesterday we had the opportunity of observing in this clinic a case of tabes accompanied by *mal perforant du pied*, in which the disease had made a hole through almost the entire thickness of the foot.

The way in which the gray matter becomes affected is still an open question; while Prof. Leyden, of this city, holds that the disease of the anterior horns is merely an extension of the morbid process from the posterior columns, the majority of neuropathologists, Mendel among the number, are of opinion that the two diseases are merely coincident, and stand in no causal relation to each other. Further observation is, therefore, necessary to settle this disputed point. As far, however, as treatment or prognosis goes, it is one of very little import. The affection of the gray matter extends sometimes into the medulla oblongata, producing the symptoms of bulbar paralysis, none of which, however, are present, even in the slightest degree, in our case. Of course, such an eventuality can but hasten the necessarily fatal termination. The treatment, of course, coincides with that of uncomplicated tabes, with the employment of the galvanic and faradic currents, used in accordance with the general rules governing their employment.

MEDICAL PROGRESS.

COCAINE IN LARYNGEAL TUMORS.—At a recent meeting of the Russian Medical Society, Dr. N. P. Simanovsky made a communication concerning the favorable results obtained by him by the use of cocaine in laryngoscopic practice. Particularly striking results were met with in the excision of laryngeal tumors. In two out of six of these cases, cocaine was not employed, and in each a period of about two months was requisite to prepare the patient for the operation. In the other four cases where cocaine was employed, the operation was performed on the second visit of the patient to the ambulatorium. Afterwards Dr. Simanovsky exhibited several instruments used in laryngoscopic practice, amongst others one invented by himself, and designed for removing laryngeal tumors.—*British Medical Journal*, August 22, 1885.

CHANGES IN THE PORTAL CIRCULATION CONSECUTIVE TO INTRAHEPATIC ALTERATIONS IN THE BILIARY CIRCULATION.—E. MARAGLIANO, in *La Salute*, f. 3 and 4, 1885, after a clinical study of the results of changes in the intrahepatic biliary circulation as related to changes in the portal circulation, gives the following résumé of his conclusions:

1. Turgidity of the intrahepatic biliary vessels may, by its mechanical effect, arrest the discharge of the blood from the portal hepatic vessels.
2. As a consequence of this impediment to the portal circulation, congestive phenomena in the vessels of the lesser circulation may result, as also tumors of the spleen and even ascites.
3. In catarrhal icterus and in the icterus of biliary retention, and especially in the hypertrophic form of interstitial hepatitis, tumors may result as a sequence of mechanical relation between the biliary and the portal circulations.

If these clinical conclusions do not seem to be confirmed from experiments upon animals, the reason is that the effects of disturbance of the portal circulation in a determined vascular zone are not constant, and also because comparative anatomy shows that in the animal scale there exists great variation in the portal circulation both in reference to its direct relation with the circulation of the cava, independent of the hepatic veins, and in its relation with their various radicles.—*Rivista Internazionale di Medicina e Chirurgia*, May and June, 1885.

SUCCESSFUL OPERATION IN TUBAL PREGNANCY.—DR. F. WESTERMARK describes, in a Swedish medical journal, a case of tubal pregnancy upon which he operated successfully. The age of the patient was 23. She began to menstruate at 12, and always suffered a good deal at the periods. Sometimes she ceased for several months at a time, and for this amenorrhœa she attended the Serafimerlasarettets Polyclinic in 1882. A cure was effected, and she became quite regular. In September, 1883, she was married; she menstruated regularly till December, 1884, when she ceased. In February, 1885, the breasts began to swell, and she believed herself to be pregnant. On the 11th of March there was slight hemorrhage, which recurred three times in a week. On

the 19th she had some pain and hemorrhage; thinking she was about to abort, she sent for a midwife. On the 25th Dr. Westermark saw her and found the cervix closed, the uterus enlarged and retroverted; to the left was an elastic tumor about the size of a small fist. The patient being unable to micturate, a catheter was passed and the uterus replaced. She continued in a satisfactory condition for three days, when she was seized with diarrhœa, vomiting, and pain. The next day she was nearly collapsed; she was again catheterized and the uterus replaced. Shortly afterwards a complete cast of the uterus came away. Her condition appearing serious, and being in poor circumstances, she was admitted into the Maria Hospital on April 8th. It was noticed that there was no tenderness on palpation. Above Poupart's ligament a tumor about four-fifths of an inch in diameter was felt. The uterus was enlarged, movable, anteflexed, and displaced to the right, the os being closed. The tumor could be felt to be distinct from the uterus, and was about the size of a goose's egg; it was soft, elastic, smooth, and did not fluctuate. A placental souffle was heard over the tumor. On the opposite side no corresponding sound could be detected. The lungs were healthy; there was an anæmic cardiac murmur; the urine contained some albumen, but no casts; the temperature was normal, and the pulse from 80 to 90. The next day there was some hemorrhage, and on the 15th a recurrence of pain. On April 19th the abdomen was opened under antiseptic precautions. In the peritoneal cavity a quantity of bloody serum and some firm clots were found; the cavity was carefully sponged out. The viscera and serous membrane appeared much injected. The right ovary and Fallopian tube were healthy; the uterus enlarged and soft. To the left lay a tumor the size of a goose's egg, in appearance very like an incarcerated hernia; immediately below, and to the outer side, lay the left ovary. The tumor was soft and very elastic; there were adhesions externally. When pricked with a needle, some bloody serum exuded. It was then ligatured and removed, and the abdomen sponged out with boracic solution and closed with deep and superficial sutures, the wound being dressed with corrosive sublimate gauze. The patient did well. The tumor was egg-shaped, having at one end the cut Fallopian tube, and at the other the fimbriated extremity. No trace of umbilical cord or embryo was discovered in the cavity of the tumor or in that of the abdomen, but traces of chorion and placental tissue were found in the tumor.—*The Lancet*, August 15, 1885.

THE NATURE OF THE SECRETION OF THE FEMALE GENITAL ORGANS.—DR. MÉNIÈRE, in the *Journal des Connaissances Médicales*, at the conclusion of a memoir concerning the nature of the secretions of the female genital organs, makes the following résumé:

1. The secretions of the human organism are, as a rule, alkaline.
2. Those of woman are less alkaline than those of man.
3. The vulvo-vaginal mucus tends to become more acid as the constitution is weak, or when it is produced as a result of morbid processes.

The uterine mucous secretion under the same condition becomes more alkaline. The state of health, therefore, corresponds with a slight acidity of the vulvo-

vaginal secretions (with the exception of the glands of Bartholini), and with a moderate alkalinity of the uterine mucus.

4. The changes of composition are proved by clinical facts, chemical analysis, microscopical examination, and particularly by the cure of sterility from certain thermal causes.

5. To changes of composition correspond hypersecretion, a composition immediately different, and the appearance of microorganisms; moreover, the uterine mucous membrane constitutes a region in which parasites neither animal nor vegetable can ever be found.

6. Notwithstanding the variations in composition, the mucus secreted by the muciparous follicles and the vaginal mucous membrane always maintains an acid reaction.

7. The mucus secreted by the follicles of the cervical and corporeal cavities, and finally that of the vulvo-vaginal glands remain invariably alkaline.—*Revue de Thérapeutique*, August 1, 1885.

STROPHANTHUS.—DR. FRASER, Professor of Materia Medica in the University of Edinburgh, is about to publish the result of his researches on the physiological action and therapeutic uses of the "kombé arrow poison" (*Strophanthus hispidus*), a subject which has engaged his attention for nearly fifteen years. The plant is a woody climber, growing freely in the forests, both of the mountains and valleys of many parts of Central Africa. In the Mangana country, near the Zambesi, it is known as kombé, but in the Gaboon district it is called "inée," "onaye," or "onage." It climbs the highest trees, hanging from branch to branch in graceful festoons like a wood-vine. Its flowers are pale yellow, and last only a very short time during the weeks which immediately precede the rainy season. The fruit ripens in June, and is collected by the natives with much care and many mystic ceremonies. From the seeds is extracted a juice in which are dipped the points of the arrows for shooting wild animals. Dr. Livingstone, in his well-known narrative of the expedition to the Zambesi, refers to its employment in this way, and says that the poison is so deadly that a beast, on being struck, at once falls to the ground paralyzed. The follicles, specimens of which we have examined, are about a foot in length, and contain from 150 to 200 seeds, each bearing a beautiful delicate plumose appendage mounted on the extremity of a thread-like stalk some three or four inches long. From the seeds, Dr. Fraser has succeeded in extracting a principle of very great activity which he has named "strophanthin." When examined under the microscope, it is seen to be composed of myriads of delicate interwoven crystals of all shapes and sizes. Injected under the skin of a frog, it arrests the action of the heart, causing complete stoppage of that organ, the ventricle being found pale and contracted, whilst the auricles are dark and distended. There seems to be little doubt that it acts directly on the cardiac muscular fibre. In physiological action it is allied to digitaline, the active principle of the common foxglove, although it exceeds it in activity, and differs from it in many important particulars. It is probable, too, that it is related to antiarin, the poisonous principle of the deadly upas tree of Java. We believe that Professor Fraser has succeeded in laying down definite rules for

its administration in various forms of heart disease, and it is likely that it will be extensively employed. It must be satisfactory to him to reflect that he has been enabled to add to our list of remedies an agent which hitherto has been employed only as an instrument of destruction.—*The Lancet*, August 15, 1885.

INTRA-PARENCHYMATOUS INJECTIONS IN PULMONARY TUBERCULOSIS.—H. TRUC, in the *Lyons Méd.*, May 3, 1885, after a number of preliminary experiments upon dogs, reaches the following conclusions:

1. Intra-parenchymatous injections of alcohol and creasote into the tuberculous lungs at a distance from the hilus, through the first two intercostal spaces, have had no other unfavorable effect than to produce pain, not constant however, and sometimes a slight elevation of temperature.

2. In no case did the inflammation produced by the injection seem to determine caseation, or to have an unfavorable result upon the progress of the tuberculosis, even when made when the lesions were far advanced.

3. The absence of satisfactory results in this last condition induces us to abstain from injections into the lungs in which the lesions are extended.

4. Creasotized injections in some subjects with lesions but little advanced, have been followed by a slight subjective and objective improvement.—*Revue des Sciences Médicales*, July, 1885.

SCARLATINIFORM RASH PRODUCED BY INTESTINAL ABSORPTION OF PTOMAINES.—A patient observed by MM. Lépine and Mollière (*Journ. de Méd. et de Chir. Prat.*, 1884) presented at first nothing abnormal except an artificial anus, the consequence of a strangulated hernia. One day he was suddenly seized with violent delirium, and M. Mollière noticed a considerable dilatation of the pupils. The skin was covered with a scarlatiniform rash, but there was neither fever nor angina. Poisoning by belladonna was at first suspected, but after a careful examination M. Lépine came to the conclusion that the symptoms were due to the absorption by the intestines of ptomaine, acting like atropine, and probably similar to that obtained by Zuelzer and Sonnenschein from putrid substances. After a short time, acute conjunctivitis and fever supervened, and the patient died. At the post-mortem examination a highly offensive substance was found in the intestine below the artificial anus, so that the possibility of an acute auto-intoxication cannot be disputed.—*British Medical Journal*, August 22, 1885.

AMPUTATION OF AN INVERTED UTERUS.—DR. A. GRENANDER publishes in the Swedish medical journal *Hygeia* a case of polypus uteri with inversion, in which the organ was successfully amputated. The woman was 58 years of age, had had six children, and had ceased to menstruate about seven years, when she began to suffer from hemorrhage, and after a time from an offensive discharge, for which she consulted the author, who, on examination, found the os patent and a large soft tumor occupying the uterus, which was about the size of a fetal head at term. He advised the woman to go to a hospital, but she did not do so. Seven months later she was obliged repeatedly to send for a midwife to catheterize her. Suddenly, a few weeks afterwards,

a tumor protruded from the vulva and bled profusely. The midwife diagnosed a polypus, and endeavored to remove it by traction. This proceeding produced so much pain that the patient begged her to desist and to send for Dr. Grenander, who, when he came, found that the tumor, which was the size of two fists, consisted of the inverted uterus and a large polypus attached loosely to it, so that he was able easily to separate them. He then attempted to replace the uterus, but, finding that impossible, ligatured the vagina, which was also partially inverted, and a week later, with the assistance of Dr. Söderström, excised the uterus with a Paquelin's knife at the level of the os internum. Antiseptic dressings were employed. There was but little pain, though no chloroform was administered. Some hemorrhage occurred, and an additional ligature was required. No signs of peritoneal irritation followed, and in eight days the stump had returned to its normal position, being a finger's length from the vaginal orifice. For the first few days the precaution was taken of drawing off the water regularly in order to prevent the wounded surface or the dressings from contact with it. With the exception of some pain of a neuralgic character, which was rapidly controlled by morphia suppositories, no untoward symptoms occurred, and the patient made an excellent recovery. Examination of the amputated uterus showed that it could not have been replaced without damage to its structure.—*The Lancet*, August 22, 1885.

TREATMENT OF ACUTE RHEUMATISM.—At the annual meeting of the British Medical Association, DR. PAVY, in discussing the treatment of acute rheumatism, said that this was one of those subjects upon which the hospital physician might specially feel himself entitled to speak. He had formed a very strong opinion with regard to the salicylate treatment. His experience now contrasted in the strongest possible manner with his experience before the treatment was introduced. Students of the present day had no opportunity of seeing in the wards the disease run its natural course, with all its urgency and severity of symptoms, as they had formerly, when it might be said there was no treatment known that produced any decided impression upon it. To use the salicylate treatment to effect, the agent must be given largely. The usual plan at Guy's Hospital was to give twenty grains of salicylate of soda every two hours for the first twenty-four, thirty-six, or forty-eight hours. By this time the pain was generally removed from the joints, and the temperature brought down, and the patient altogether placed in an easy condition. The frequency of the dose might then be reduced to every three hours, and later to every four and six hours. What he considered of the greatest importance was that, notwithstanding the complete subsidence of the disease, the treatment in a case that was severe should be continued for at least twelve or fourteen days. He sometimes met with a certain amount of discontent in having this carried out. The patient often could not be brought to understand the necessity of being kept in bed, and upon the milk and farinaceous diet to which he was restricted for at least the time named, and would press for the restrictions imposed to be removed. His experience led him to conclude that the salicylate treatment, in subduing the symptoms as it did, simply controlled the manifestations of the dis-

ease, without absolutely removing or eradicating that which gave rise to the manifestations. Time was required for this to subside; and if, during this time, the treatment, or that which kept the condition under control was removed, immediately it manifested itself by a return of the symptoms. This was the view that forced itself upon him from what he had seen. It accounted for many of the relapses that occurred, and explained the necessity of keeping the patient under treatment for a definite time, however speedily the disease might appear to have yielded. The treatment did not influence the complication as it did the disease itself. With the disease subdued at once by this treatment, the complications were not likely to arise as under other circumstances; but, if a patient were admitted with pericarditis or endocarditis, this was not influenced in any marked manner by the treatment. Hyperpyrexia was not controlled by the treatment; if it were, the management of this grave condition would be much more easy than it was. The more acute and general the case of rheumatism, the better he considered it adapted for the salicylate treatment. Indeed, in chronic or subacute cases, or where only one or two joints were attacked, he had not found any decided benefit derivable from it. Sometimes the salicylate produced toxic effects, which constituted a barrier to its further administration to the extent required. Directly these toxic effects showed themselves, his plan was to take off the salicylate and administer salicine in a similar dose. This, he found, answered what was wanted. He did not begin with salicine in the first instance, as, rightly or wrongly, he was under the impression that the salicylate was the more powerful antirheumatic agent of the two.—*British Medical Journal*, August 22, 1885.

CORROSIVE SUBLIMATE IN OPHTHALMIC PRACTICE.—DR. BELOV, writing in a Russian ophthalmic journal, gives his experience of corrosive sublimate in the treatment of inflammation of the conjunctiva. The cases in which he used it numbered 65, and were made up as follows: 26 of catarrhal conjunctivitis, 19 of the phlyctenulous variety, 2 of the croupous, 2 of the blenorrhagic, and 16 of the granular. The conclusions to which he was led were: 1. Under the use of an extremely weak solution of corrosive sublimate as a spray, inflammatory secretion quickly diminishes, and in a short time disappears. In acute cases the inflammatory infiltration quickly decreases, and in chronic cases there is also a diminution of the infiltration, which, though less marked than in acute cases, is more rapid than when nitrate of silver is used. 2. Phlyctenae, which quickly disappear when calomel is used, are also rapidly cured by corrosive sublimate. 3. Trachoma complicated with acute or chronic inflammation, in addition to the cure of the latter, shows a diminution in the number of the granulations. 4. In all acute inflammations where nitrate of silver is contraindicated, instead of employing cold and leeches, a weak solution of corrosive sublimate can be used, not only in the form of drops and collyrium, but in extreme cases as a wash applied with a syringe. 5. In chronic inflammations and in the second stage of blenorrhœa a combination of nitrate of silver and corrosive sublimate in solution gives better results than the silver alone. 6. Good results may be anticipated from the use of a weak solution of corrosive sublimate in the

form of spray as a prophylactic against ophthalmia neonatorum. The author makes the applications from two to eight times a day, continuing them for half a minute to a minute at a time, according to the quantity and nature of the secretion. The atomizer is always held close to the eye in order that the spray may be blown in with sufficient force to remove the secretion quickly and thoroughly. In all cases the lower eyelid is first turned out and then the upper, each being sprayed separately; in this way the eye is kept open so that the whole surface of the conjunctiva is exposed to the action of the atomized fluid. In cases of phlyctenæ the spray is used with the lower lid slightly drawn out, the upper lid being at the same time held back. The author particularly recommends the sublimate treatment in cases where nitrate of silver is unsatisfactory—*e. g.*, chronic conjunctival catarrh and conjunctivitis in scorbutic subjects, and where complicated with inflammation of the cornea. He considers the use in ophthalmic practice of a solution of the strength of 1 to 20,000 or 1 to 10,000 quite safe.—*The Lancet*, August 15, 1885.

THE REMOVAL OF TUMORS OF THE ABDOMINAL WALL WITH THEIR PERITONEUM.—DR. M. SÄNGER, of Leipzig, contributes to the *Archiv für Gynäkologie* (Band XXIV. Heft 1) an interesting paper on this subject. It deals with the removal of tumors of the belly wall so closely and extensively applied to the peritoneum that this membrane can only be preserved uninjured by a difficult dissection, after which a large thin sheet of peritoneum, free from its main vascular connections, will be left. In such circumstances some operators have adopted the easier course of cutting away the tumor with its peritoneal covering, and taken great pains to bring together the edges of the peritoneal wound, leaving the skin which covered the tumor as a large loose bag over the stitched-up incision. Others have filled up the gap by stitching omentum into the wound, without great success. Säger here publishes a case in which he simply stitched together the margins of the incision through the skin and muscles, leaving the large surface from which the tumor had been removed uncovered with peritoneum; so that after closure of the wound a great part of the anterior abdominal wall was left bare of peritoneum. Three similar cases have been published before, one by Esmarch, two by Sklifossowsky. All four were successful. In only one of them (Esmarch's) was drainage employed. In order to determine the behavior of the parts affected when this course had been adopted, Dr. Säger has made experiments upon animals, and he finds that just as after a destruction of skin, healing takes place, and fresh epidermis is formed, so after removal of part of the peritoneum new endothelium is produced. The paper concludes with a general survey of all the cases of tumor of the abdominal wall known to the author.—*Medical Times* (London), August 22, 1885.

COCAINE IN GYNECOLOGY.—The French and Italians allege that they have met with brilliant success in the employment of cocaine for the alleviation of pain in diseases of, or operation on, the female pelvic or external organs. Dr. Dujardin-Beaumetz has described a case of vaginismus which followed lingering labor with retained placenta. Dyspareunia lasted for two years,

and the vaginismus was not relieved by forcible dilatation of the sphincter vaginae under chloroform. The inner surface of the nymphæ and the entrance of the vagina were painted four times with a 2 per cent. solution of hydrochlorate of cocaine. After the fourth application, digital examination or the introduction of the speculum caused no pain or muscular contraction; and a cord-like band, that had previously been felt under the vaginal mucous membrane, had disappeared. Dr. Rusconi has used cocaine freely in the gynecological wards of the Ospitale Maggiore, Milan, generally painting a 2 per cent. solution on the surface of erosions of the cervix before applying nitrate of silver. This greatly alleviated the pain generally caused by caustics. In a case of advanced cancer of the cervix, he applied a plug soaked in three grammes of a solution of 20 centigrammes of hydrochlorate of cocaine in 25 grammes of water. The pain was relieved in a minute, and disappeared in ten, beginning again in an hour and a half. It was found necessary, as might have been expected, to press the plug firmly against the ulcerated surface, in order to produce the full effect. The radiating lancinating pains were much relieved by painting the greater and lesser labia, the vestibule, and the vaginal orifice, with the same solution. These pains, however, soon returned, long before the parts which had been painted had recovered their sensibility. A 3 per cent. alcoholic solution stopped the pain for about a quarter of an hour, but produced a transitory redness over the vaginal mucous membrane, and a burning sensation. The other solution had made the mucous membrane look pale. Dr. Rusconi found that, in some women, cocaine failed to cause the slightest anæsthesia of the vaginal mucous membrane, although the cornea was rapidly affected in the same subjects. His best results with this new drug followed subcutaneous injection in cases of cancer of the uterus, the pains disappearing in six or seven minutes, and not returning for over two hours. By frequent injections, patients that had entirely lost their appetite began to eat heartily. Simultaneous injection of cocaine and morphia produced even better results. The combination of cocaine with atropia was less satisfactory, and seemed to increase the poisonous properties of the latter alkaloid.—*The British Medical Journal*, August 22, 1885.

THERAPEUTIC USE OF HYDROFLUORIC ACID.—DR. EUGENE CHEVY, in a study of the therapeutic use of hydrofluoric acid, finds that,

1. The vapor of hydrofluoric acid mixed with air does not produce the ill-effects hitherto feared. It may be breathed without inconvenience in the proportion of 1 to 1500.

2. Hydrofluoric acid is an antiseptic and antifermentative substance. In the proportion of 1 to 3000 it is able to arrest fermentation in milk, urine, bouillon, and accomplish their preservation.

3. The therapeutic use of hydrofluoric acid in pulmonary tuberculosis, diphtheria, and in the dressing of wounds, from the results already attained, merits further investigation.

4. The agent must be employed with great care if the patient is affected with asthma, hemophilia, or emphysema.—*Bulletin Général de Thérapeutique*, August 15, 1885.

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SUPRAPUBIC LITHOTOMY, AND SUTURING THE BLADDER.

WITHIN a year SIR HENRY THOMPSON has operated for the removal of stone in the bladder by the suprapubic operation four times, and each time successfully. This measure of success has led him to make public some strong expressions in regard to the merits of this form of lithotomy. After speaking of the capabilities of lithotripsy, in *The Lancet*, for July 25, 1885, he says: "The problem thus left remaining for solution, is, What is the best cutting operation for hard calculi (urates and oxalates) which weigh from about two ounces and upwards, as well as for those not quite so large, which are so peculiar in form (as occasionally, but very rarely, happens) that the lithotrite fails to grasp, or retain them? I think there is no doubt about the answer—viz., that it is the suprapubic, and not the lateral operation." And, again, "Finally, I think I am quite justified in believing that unless the operator has had a large experience of lithotripsy (and there are not many of whom this can be affirmed) the high operation would generally be a safer proceeding than crushing for a calculus which is hard and much above an ounce in weight." In the same number of *The Lancet*, Professor Humphrey recalls attention to an operation of this sort which he did in 1848 successfully, and expresses his surprise that the suprapubic operation has not been more frequently performed.

These testimonials to the present appreciation of the operation of suprapubic lithotomy in England mark a distinct advance in public sentiment there, where hitherto this method has had but the faintest and most qualified acknowledgement, and from Sir Henry Thompson himself, hitherto open contempt.

Now, however, that so eminent and so conservative a surgeon has given his sanction to the suprapubic operation, its gold may be said to have received the guinea's stamp, and to be current in all the Queen's dominions.

It is now about ten years since the merits of this, then almost abandoned method, were made the subject of thorough study in this country, and warmly championed upon theoretical grounds, as well as supported by analysis of a very large number of cases. At once it began to be practised with increased frequency in America; then it was taken up with new assurance in Austria; then in Holland; then in Germany, where it has always had some friends; then it had a genuine revival in France, and now it has secured the approval of the highest authority in regard to operations for stone in the bladder in Great Britain.

It would appear, therefore, that the time has passed for arguing about the worthiness of suprapubic lithotomy, as a general method; since the old prejudices have gone down so completely before the arguments used in its support, and the improvements introduced in its technique. It would seem that the future of stone operations remains with Bigelow's operation of litholapaxy and suprapubic lithotomy, and the only questions which have now a living interest with regard to the latter are those which pertain to the proper selection of cases and the manner of performing it. In regard to the selection of cases, it would not be easy to improve on what we have quoted above from Sir Henry Thompson. As to the technique, the plan of forcing the bladder up out of the pelvis by introducing a colpeurynter into the rectum, and distending it with air or water, as was first done by Petersen, of Kiel, appears to be of great value. It may, perhaps, be responsible for the moderate hemorrhage reported in some recent cases, on account of the pressure it effects upon the venous plexuses at the neck of the bladder; but it cannot be doubted that it has contributed much to the ease of performing the operation, and invited men to take it up who otherwise would not have done so.

In regard to after-treatment, the most important question concerns the employment or rejection of suturing the bladder.

This would appear to be no question at all if such brilliant results could be obtained regularly as have been affirmed in a considerable number of cases. Thus Bruns, who was the first surgeon to suture the bladder after lithotomy, secured uninterrupted union of the wound in his first two cases, both being little children. This was in 1857 and 1858. (These operations are often erroneously attributed to Lotzbeck, who simply reported them. They were done in Bruns's clinic. The bladder was sewed up during the Crimean war by Baudens, after the removal of a

bullet by suprapubic cystotomy; recovery followed. Although this was not a lithotomy, it deserves to be mentioned, as the first case, so far as we know, in which an attempt was made to secure primary union of the bladder after an operation for the removal of a foreign body.) The variety of methods of closing the wound after suprapubic lithotomy is very great, but they may all be divided into those which close the bladder wall independently and those which close this and the wall of the abdomen together. The latter procedure has not been often carried out, although it has sometimes secured a brilliant result. The former has been done a considerable number of times, probably not much less than a hundred. The results have been so far from uniformly successful that it may be seriously questioned whether or not suturing the bladder be a method to be recommended. It will be admitted that this question can only be answered in the affirmative, if theory alone be considered. And, however imperfect may be the success as yet attained by it, the ideal operation of lithotomy must be held to include closing the wound, and securing primary union. This has been done a good many times, and can be done yet more.

But, in the present state of the technique of suprapubic lithotomy, we think it safe to qualify our statement that suturing the bladder is to be regarded as essential to the ideal operation. The ideal operation implies conditions suited to it, and, without going into details, we think it will be acknowledged that such conditions are not found in a considerable number of cases of stone operations. Suturing the bladder is manifestly out of place in cases in which the condition of the bladder is such as to preclude the idea that it can heal up by primary union, or in cases in which free drainage is manifestly a desideratum. Again, it is not suited to cases in which the size, shape, or position of the bladder, or of the neighboring parts is such as to make the procedure very difficult, or to prevent its being accurately—we may say perfectly—carried out. In these cases, certainly, it is far better to treat the wound after suprapubic lithotomy like the wound of perineal lithotomy—that is, to leave it open, and to secure free drainage through it.

For cases in which suturing the bladder is suitable, Znamenski recently proposed to bevel off the internal, mucous edges of the wound, because he believed they got caught and turned in between the united edges when the sutures were tightened, and so prevented union. And Vincent has still more recently suggested bevelling off the external edges of the wound in the bladder, so that, when the stitches are drawn upon, a larger fresh surface shall be brought together, and the chances of union thereby be increased. This idea, which he never put into practice, has been taken up and carried out by GÉZA, of Antal,

who reports in *Langenbeck's Archiv*, Bd. xxxii. 2 Heft, 1885, under the title "Eine modificirte Sectio alta," a case of lithotomy and a case of removal of a morbid growth, in both of which he secured primary union by suturing the bladder in this way. The first patient was dismissed, cured, in twelve days, but was really fit to be dismissed in nine days. The second patient made an equally prompt recovery.

The plan of Dr. Géza consists in exposing the bladder by the usual method, after distention of the bladder and the rectum, and then in freshening an elliptical space a little longer than the proposed incision in the bladder and from one to one and a half centimetres in width. This freshening is carried so deep at the line of the proposed incision that there is little left but the mucous membrane of the bladder, which is afterwards incised, and the stone removed. The sutures he uses are of silk, rendered antiseptic with corrosive sublimate; catgut, he believes, gives way too soon. Each stitch is to be applied so as to include all of the bladder wall, except the mucosa. The wound, in Dr. Géza's cases, was covered with Lister's dressing, and a soft catheter left in the urethra.

It is worth while to call attention to this proposition of Dr. Géza, because it is ingenious, and, reasoning from the analogies of operations for vesicovaginal fistula, its execution may be expected to make the sutures much more reliable than when they were applied in a simpler fashion. It is to be noted, too, that this is a very different thing from the Lembert suture, which is very good in its way, but which seems to offer less hope of prompt union from the apposition of two serous surfaces than this one does from its apposition of two fresh-cut surfaces. In addition to this, the fact that it has already proved so successful in the hands of its proposer is strong recommendation to its further employment.

No study of the plans of suturing the bladder after suprapubic lithotomy would be complete which omitted consideration of an ingenious method used in 1876 by Dr. Starr, of Georgia, his patient recovering in sixteen days. This case was first reported by Dr. Dulles, in an article on suprapubic lithotomy, in the *American Journal of the Medical Sciences* for July, 1877, and again, by the operator, in the *Atlanta Medical and Surgical Journal* for December, 1877. The suture used was of silver wire; it was interrupted; each stitch was passed into the abdominal wall at one side of the wound, and made to include a small portion of the outer layers of the bladder wall; it then passed across the incision and included a similar small portion of the outer layers of the bladder wall on the other side; it then passed up through the abdominal wall to the surface. When drawn tight it slightly inverted the bladder walls, and brought the edges of the abdominal incision

close together. It is easy to see that this form of suture must tend to prevent burrowing of discharges between the bladder and the parietes of the abdomen, while it gives a good hold to the stitches which close the bladder itself.

The success obtained by Dr. Starr in its use should encourage others to imitate him. Certainly no better result could be asked for than he obtained.

We sincerely hope that American surgeons will not be backward in contributing their share to the solution of the problem as to the best way to conduct this operation. Its present standing is largely due to their courage in defending and practising it at a time when it was held in much lower esteem than it is now; and we believe the genius in dealing with practical questions in medicine and surgery, which has always been conceded to them, cannot fail to prove of great value if applied to the question of the best method of treating the wound after suprapubic lithotomy.

THE MANAGEMENT OF OCCIPITO-POSTERIOR POSITIONS.

Two valuable papers upon occipito-posterior positions have been contributed by American obstetricians within a year. One of these was by DR. SAWYER, and was read before the American Gynecological Society at its Chicago meeting last fall; the other was by DR. RICHARDSON, and was read at the annual meeting of the Massachusetts Medical Society last June. The subject is one of such great importance, for every obstetrician of even moderate experience has met with difficult cases of labor arising from such position, that we believe our readers will be interested in its consideration.

Both Dr. Sawyer and Dr. Richardson very graphically describe the tediousness of the labor in these positions; both dwell upon the errors of diagnosis, and the importance of external examination to avoid them, and to assist the knowledge gained by vaginal touch. Dr. Sawyer has had an extraordinarily large proportion of cases of occipito-posterior positions, one in five; and he has also had an unusual experience in regard to the general failure of external rotation to occur. The mechanism of delivery when the occiput rotates posteriorly is given by him according to the statement usually found in obstetric text-books—that is, the occiput is born first, then deflexion occurs, the nucha pivoting upon the anterior margin of the perineum. If the perineum be torn, the perineal gutter thus shortened or absent, this probably is true. But when the perineum is entire, we are convinced that Tarnier's explanation of the delivery of the head is the correct one. While the occiput moves along the perineum, greatly distending it, the region of the anterior fontanelle and the top of the forehead are the parts which advance first and correspond to the vulval gap; the occiput, in place of disengaging first,

at the level of the posterior commissure, with difficulty arrives there when the entire forehead has disengaged in front.

As to interference in occipito-posterior positions, Dr. Sawyer says he entertains no expectation of the occiput turning forward, if at all, before either the woman or foetus will demand succor. Dr. Richardson has greater faith in nature; he observes that "the great majority of them require no treatment, beyond a careful watching on the part of the attending obstetrician." Dr. Sawyer advises seizing the head with the hand, and making anterior rotation, this movement is assisted in some degree by the application of the other hand to the body of the foetus through the abdominal wall. Rotation having been accomplished, the labor may be left to nature, or ended with the forceps. In some cases where anterior rotation can be effected neither by nature nor by art, delivery by the forceps with the occiput posterior is necessary; the most important point in such delivery is to use the forceps especially for producing complete flexion. He prefers the left side position for the patient. The use of the hand to cause anterior rotation, of course, is simply repeating the practice of Smellie.

Dr. Richardson says: "The diagnosis of a posterior position of the occiput having been made, the progress of the case should be carefully watched, with a view to an immediate detection of any failure of proper flexion. The posterior fontanelle should always be easily reached, while the lower the head descends the greater the difficulty in touching the anterior fontanelle, on account of the crowding of the frontal end of the head against the symphysis pubis. If at any time during the progress of the case the posterior fontanelle remain stationary while the anterior is becoming more and more easy of access, the attendant is at once conscious of a gradual extension of the head. It is at this time that an intelligent interference with the case can be of the greatest service. The fingers of the right hand, if the occiput be to the mother's right, should be applied to the frontal end of the head, and, during a pain, a firm resistance, not pressure, should be kept up to prevent any further descent, and the actual flexion of the head should be left to the pressure exercised on the occipital end by the force from above occasioned by the uterine contractions."

It will thus be observed that Dr. Richardson is much more conservative in his practice than Dr. Sawyer, and regards interference as rarely necessary. But we do not accept the explanation given by the former, in the last sentence quoted, as to the descent of the occiput. It is not pressure exerted on the occipital end that causes its descent, but this occurs because the occipital arm of the head lever meets with less resistance than the frontal arm, and therefore descends.

Dr. Richardson asserts that with the forceps applied, if extension has occurred to any degree, the traction made increases the extension, thus facilitating the change of an occipital into a face presentation. A change into a face presentation is impossible if the head be of normal size. As to the alleged evil from the application of the forceps, we believe that the instrument will be found applied very nearly with the blades parallel to the maximum diameter of the foetal head, and if traction be made, and no effort at flexing the head be attempted, as advised by Dr. Albert H. Smith and most obstetricians, the head will be delivered as pointed out by Tarnier in the quotation we have given; we know, too, this can be done without tearing the perineum, even in a primipara, if the operator will, or can delay the delivery until dilatation is effected. Our objection to the use of the forceps is, that in the application of the instrument there is danger that an oblique occipito-posterior position will be converted into one directly posterior, the occiput rotating into the sacral cavity, and thus an end be put to all hope of anterior rotation. An early resort to the forceps is therefore to be avoided.

Dr. Richardson states that in several cases he has been able to cause both flexion and descent, and consequent anterior rotation of the head, by applying the forceps with the pelvic curve reversed, that is, with its convexity towards the pubes; the cephalic curve should pass over the ears of the child, and the ends of the blades rest on the occiput. "The flexion is often facilitated by pressing the frontal end of the head up with one hand, while the occiput, held firmly within the blade of the forceps reversed, is drawn downwards with the other." Of course, extraction of the head is not to be made with the forceps thus applied.

We are inclined to look upon this method of using the forceps as probably very good, yet it carries with it some dangers, some of which probably could be avoided were one to use some one of the straight forceps,—Churchill's, for example.

Finally, if the head is to be delivered by forceps, the position having become occipito-sacral, the true mechanism of delivery in such a position is borne in mind, and no effort made to drag out the occiput first, for the success of such effort means a tear of the perineum.

EXTEMPORANEOUS EXAMINATION OF THE MILK OF WET-NURSES.

A READY method of ascertaining the character of human milk has not yet been found, unless an exception be made in favor of that of Dr. PAUL HÉLOT, which we find published in the *Journal d'Accouchements* of August 15.

Hélot's method is based upon the proportion be-

tween an equal volume of distilled water and of milk; this proportion is 30 to 35, or more simply 6 to 7, that is, six drops of distilled water are equal to seven of milk. A milk having thirty-seven or even forty, gave a good result, but if it fell below thirty-three drops it possessed neither clinically nor physically the requisite qualities.

The milk is taken from the breast by a Pravaz syringe, the needle being removed, and the extremity carefully wiped; the milk should be taken about the middle of nursing, and that from each breast should be examined. The syringe is held vertically, the piston pushed slowly and gently down so that the milk escapes drop by drop, and the drops counted. Then an equal bulk of distilled water may be introduced into the syringe, and the drops counted, or this may be previously known, and a comparison made so as to learn whether the milk has its normal number of drops.

THE INTERNATIONAL MEDICAL CONGRESS.

THE new Committee met again in New York on the 3d inst. All reporters were sedulously excluded from the gathering, and we are, therefore, unable to present a detailed statement of the proceedings.

There were present, either as members or substitutes, Drs. R. Beverly Cole, of San Francisco, Chairman; J. V. Shoemaker, of Philadelphia, Secretary; W. H. Wathen, of Louisville; J. B. Hamilton, of U. S. Marine-Hospital Service; X. C. Scott, of Cleveland; Robert Battey, of Rome, Ga.; E. T. Upham, of West Randolph, Vt.; Ellsworth Eliot, of New York; J. S. Lynch, of Baltimore; A. Y. P. Garnett, of Washington; A. H. Wilson, of South Boston; Wm. Brodie, of Detroit; G. Baird, of Wheeling; Paul B. Sale, of Aberdeen, Miss.; Wm. Watson, of Dubuque; R. A. Kinloch, of Charleston; N. S. Davis, of Chicago; Wm. Pierson, of Orange, N. J.; Austin Flint, Jr., of New York; J. W. S. Gouley, of New York; R. C. Moore, of Omaha; and W. C. Wile, of Sandy Hook, Conn.

The rule of membership was amended so as to give representation to the general societies representing special departments of medicine. The Executive Committee appointed at Chicago was abolished and a new committee appointed, consisting of the President, the Secretary General, the Treasurer, and the Chairmen of the Sections.

The Committee then proceeded to fill the large number of vacancies occasioned by the declinations to coöperate with them. Dr. Henry I. Bowditch, of Boston, was elected a Vice-President of the Congress; Dr. N. S. Davis, of Chicago, was elected Secretary-General; Dr. William H. Pancoast, of Philadelphia, was elected President of the Section of Anatomy; Dr. E. O. Shakespeare, of Philadelphia, President of the Section of Pathology; and Dr. A.

B. Arnold, of Baltimore, President of the Section of Medicine.

The Executive Committee was given power to fill all vacancies. Dr. Austin Flint, Jr., was instructed to prepare the report of the Committee to be presented to the American Medical Association, and the Committee adjourned to meet in St. Louis on the Monday evening preceding the next meeting of the American Medical Association.

Without wishing to prejudice the work of the Committee, we cannot refrain from giving voice to the regret that will be universally felt that no effort was made at the meeting to harmonize the grave differences which exist in the profession, and that the expressed views of the European members of the Congress were not deemed of sufficient importance to be accorded consideration.

REVIEWS.

TRANSACTIONS OF THE AMERICAN GYNECOLOGICAL SOCIETY. VOL. IX. FOR THE YEAR 1884. 8vo. pp. 408. New York: D. Appleton & Co., 1885.

Of the special medical societies of our country, there is no one that does itself more credit in its annual volume than the American Gynecological Society, with its fifty-three Fellows; and there is no body of American physicians so well known individually in Europe, by the originality and success of their operations, their contributions to science, and by the frequency of their visits abroad. What names among us are better known abroad, than those of Thomas, Emmet, Barker, Sims, and Battey? Our land is the home of Gynecology. Here ovariectomy had its introduction under McDowell; here anæsthesia, so important to the surgery of women, was discovered, and here the chief improvements in the treatment of vesico-vaginal fistulæ originated under Drs. Sims, Bozeman, and others. Here, also, the Hodge pessary, so highly recommended in England; the Sims speculum, so important in all the surgery of the vagina; the shotted silver suture; the operation of *trachelorrhaphy* by Emmet, and Battey's *oöphorectomy*, were devised. Dr. T. G. Thomas, who revived the operation of laparo-elytrotomy, and Dr. Alex. J. C. Skene, who has saved three women out of four, under it, with three children, are Fellows of this Society. So is also in its honorary list the oldest living ovariectomist, Dr. John L. Atlee, of Lancaster, who followed very early the work of McDowell. Such active, earnest men as these do credit to their country, and it is such that our foreign *confrères* anticipated with pleasure the opportunity of meeting at the International Medical Congress in 1887; men who have made themselves known by their valuable work, and not such who are famous by their schemes to obtain notoriety in ways not always creditable, even if honest and truthful.

The volume under notice contains the monographs of 14 Fellows, and contributions given in discussion by 12 others, making 26 out of the 53, who have been

actively engaged in its production. We desire to call special attention to the paper by Dr. J. C. Reeve, of Dayton, Ohio, entitled *Moot Points in regard to Inversion of the Uterus*, as it brings to light the irresponsibilities of the accoucheur in many cases of this accident, which may be valuable testimony in suits for malpractice unjustly brought against physicians. Dr. Reeve shows clearly that inversion may occur as an accident at any period of life—in the young virgin, in the mother, days, weeks, or years after her last labor, and in the multipara, without any special accidental exciting cause, except abdominal pressure acting upon a uterus, softened and relaxed from frequent hemorrhages.

We also call attention to the article of Dr. Paul F. Mundé, on *Interstitial Cervical Fibroids as a Cause of Dystocia, and their Removal by Vaginal Enucleation*, as the plan of removal of such tumors in cases of obstructed labor is one of the means of saving life in desperate conditions of dystocia, otherwise requiring the Cæsarean operation, which, under the circumstances of delay common in such cases, will usually prove fatal, only 3 out of 11 having been saved in the United States. Over a dozen instances of enucleation have been reported, and growths up to 3½ pounds in weight have been removed. When carefully managed, such cases will generally do well, the chief risks being from hemorrhage at the time, or after delivery, and from septiciæmia.

Dr. T. G. Thomas reports six additional cases of extra-uterine pregnancy, making twenty-seven which he has had charge of, almost all of them in consultation. He has operated upon a number of patients with the galvanic current, with the effect of destroying the fetus in the early period, which he now limits to four and a half months. These cases terminated favorably, as did also four others in which he performed secondary laparotomy for the removal of the dead fetus. He also advises the removal of the living fetus at maturity, although but two out of seventeen of such operations have not ended fatally, and one of the two children had an encephalocele, of which it soon died. We should like to see Dr. Thomas succeed in such an operation, but even the successes of Jessop, of Leeds, and Martin, of Berlin, are anything but encouraging to an imitator, when he carefully reads over their reports.

We would also call the attention of students of medicine to the paper of Dr. R. Stansbury Sutton, of Pittsburgh, on the *Pathology, Diagnosis, and Treatment of Non-malignant Uterine Tumors*, which in seventy pages fully and clearly treats of this class of tumors, and their cure by removal under the knife, the ergotine treatment, and Battey's operation as applied and modified by Mr. Lawson Tait, on February 11, 1872, at the age of twenty-seven. This plan of cure for intramural tumors, known as "Tait's operation," in which the ovaries and Fallopian tubes are excised, has had very marvellous effects in some cases after almost fatal hemorrhages, of which we are witnesses.

To the gynecological student and accoucheur the volumes of *Transactions* of the American Gynecological Society are of very great value, and we particularly recommend the *discussions* upon the papers, which embody the opinions of a number of Fellows of large experience.

SOCIETY PROCEEDINGS.

AMERICAN DERMATOLOGICAL ASSOCIATION.

Ninth Annual Meeting, held at the Indian Harbor Hotel, Greenwich, Conn., August 26, 27, and 28, 1885.

(Specially reported for THE MEDICAL NEWS.)

WEDNESDAY, AUGUST 26TH.

(Concluded from p. 279.)

EVENING SESSION.

DR. L. A. DUHRING, of Philadelphia, read a paper on

THE RELATION OF HERPES GESTATIONIS AND CERTAIN OTHER FORMS OF DISEASE TO DERMATITIS HERPETIFORMIS.

Attention was briefly directed to the previous article of the reader on dermatitis herpetiformis, and to a paper showing its identity with the impetigo herpetiformis of Hebra; also to a preliminary note on the relation of this disease to herpes gestationis and other similar forms of cutaneous disease, read before the Association at the last meeting.

The object of the present communication was to prove the identity of so-called herpes gestationis with the vesicular variety of dermatitis herpetiformis, and to show that the term herpes gestationis is a misnomer, the affection being found in men as well as in women. Secondly, that certain other so-called forms of herpes, such as "herpes pemphigoides," "herpes vegetans," "herpes pyæmicus," etc., as well as certain cases regarded by the reporters as "peculiar forms of pemphigus," must be viewed as examples of this disease; and, finally, that instances of the same affection are also met with in literature under the title of hydroa, and under divers other captions. Numerous cases from English, French, and German literature were cited. The paper of Dr. Duhring was stated to be looked upon as supplementary to the preliminary note referred to, and embodied the results of considerable research into literature. If the views put forth proved to be correct, a great deal had been gained for dermatology in bringing these peculiar forms of disease together.

DR. WHITE thought that the term dermatitis herpetiformis is a misnomer. The disease should be called dermatitis multiformis. The herpetic element is often wanting.

DR. ROBINSON agreed with Dr. White, that the term dermatitis herpetiformis is too restricted, but he should prefer some term which has no significance until the true nature of the disease is better understood.

DR. HYDE said that there are reasons why he should disagree with the last speaker; the term herpetiformis is preferable, if for no other reason than because it is suggestive.

DR. FOX wished to show here a photograph of a case which might be mistaken for dermatitis herpetiformis, namely, erythema multiforme. This disease should be placed in strong contrast with dermatitis herpetiformis.

DR. DUHRING said that the name dermatitis herpetiformis was adopted because it seemed the least objectionable. The herpetiform character of the disease is to his mind characteristic.

DR. G. H. TILDEN, of Boston, then read a paper on
MYCOSIS FUNGOIDE.

He described the case of a man aged 28 years when he came under observation. Three years before several red, desquamating spots had been observed on the elbows. Several months later erythematous spots accompanied with pruritus were noted. These lesions retained a dry scaly character. There were no vesicles or pustules. At the end of a year, several red nodules appeared on the face and throat; these however disappeared. Later a small papule appeared on the right thigh and increased in size; from this there exuded a thin fluid. This was followed by the development in many parts of the body, particularly the axillæ, groins, and neck, of similar lesions, in some cases reaching the size of a hen's egg. After a time there was superficial erosion of some of the tumors, but these excoriated tumors remained firm in consistence, although some of the masses which were covered with epidermis were soft, but there was no evidence of the formation of pus. There was also indolent enlargement of the lymphatic glands. The general health continued good. The patient passed from observation and died at the end of three years and a half.

The report of the microscopist who examined the tumors was read. His opinion was that the growths were lymphangiomatous in character.

Reference was then made to the literature of the subject and the various cases, some thirty in number, which had been reported, were given, and the symptoms and course of the disease were described.

Sections of the growth were also presented for examination.

DR. WHITE said that this patient was under his care during the last stages of the disease and he presented the changes which have been described. Some of the larger growths disappeared. During the last months of his life the man was taking arsenic. Marasmus developed; death resulting from the occurrence of diarrhœa.

DR. ROHÉ, of Baltimore, said that four years ago he saw a case of what he believes to have been the same affection. The man, 62 years of age, had a multitude of these tumors. Several had been extirpated before he came under his care, but there was recurrence with this fungoid appearance. The man was given arsenic, but he died from exhaustion. No autopsy could be obtained. As far as could be detected, there was no affection of the liver or spleen.

DR. MORISON has seen a similar case which was diagnosed multiple sarcoma of the skin. It takes the microscope, he said, to settle the question in these cases.

DR. FOX had seen one or two similar cases in New York. Should one come under his care, he would try the effect of chaulmoogra oil; judging from its effect in other diseases, it should be useful.

DR. HARDAWAY said that in a case of alveolar sarcoma which he reported, the disease has existed fifteen years, but the clinical features are about the same as they were years ago. There is marked enlargement of the lymphatic glands. The general condition remains good.

DR. HEITZMANN said that the description of the microscopic appearance is that of a lympho-sarcoma,

and the examination of the specimens confirms him in this view.

DR. SHERWELL said that to show the amount of involution that may take place, he would refer to a case of melano-sarcoma under his care. The man was treated with arsenic, mercurials, etc. After six months treatment, the tumors have almost entirely disappeared. There was not the slightest evidence of syphilis.

DR. FOX remarked in regard to the use of chaulmoogra oil, that he had seen it used in a case of leprosy. There is now not a trace of leprosy, except the contraction of the fingers, which is however a secondary condition; it has failed in many cases, but there is sufficient to justify a trial of it in the chronic inflammatory affections referred to to-night.

DR. L. N. DENSLOW, of St. Paul, read a paper on
URETHRAL IRRITATION IN THE MALE, AS A CAUSE OF
CERTAIN NEUROSES AND OF ACNE.

He prefaced his remarks by a brief review of the cases of contracted meatus reported by Dr. Otis. He then gave an account of a number of cases coming under his observation in which there were reflex conditions associated with such conditions of the urethra as contracted meatus, stricture, and excessive sensitiveness of the prostatic urethra. In these cases removal of the urethral trouble produced an alleviation or cure of the affection to which attention had been directed. He also reported four cases in which the same treatment was followed by marked improvement or cure of the skin disease (acne).

The speaker said that he simply reported the cases as so many observed facts and did not express any theory. He would keep the cases under observation and at a subsequent meeting give a further report.

DR. WHITE asked Dr. Denslow if he had ever used this treatment in females.

DR. DENSLOW said, No. In females in conjunction with external treatment, he depended entirely upon the use of ergotin, six to twelve grains three times daily.

DR. WHITE said in regard to the use of ergot, that he had employed it in obstinate cases, without seeing the least benefit from its use.

DR. TAYLOR protested against the promiscuous cutting of urethras which is so common at present.

DR. SHERWELL believed that acne is largely a reflex disorder, but he is not in the habit of introducing a sound in every case of acne. He gets good results from other measures. He thought that it is valuable in exceptional instances. He strongly believes in the action of ergot in connection with local applications, especially in females.

DR. HYDE said that many of these cases with urethral trouble associated with acne, are patients who probably have been taking for some time balsamic preparations, and as a result they have development of acne. He would suggest to Dr. Denslow that he take this point into consideration.

DR. STELWAGON said that in the past few years he had prescribed ergot for a large number of acne cases, but after a few weeks' administration in many cases, supervening nausea and vertigo compel its discontinuance, nor could he as yet see any positive evidence of its supposed value.

DR. DENSLOW said that in all the cases reported the

acne has existed since puberty. The patients were not hypochondriacs and they were not masturbators. He is satisfied that no drugs had been used in any of them.

FRIDAY, AUGUST 28TH.

MORNING SESSION.

DR. C. HEITZMANN, of New York, made some
REMARKS ON ELECTROLYSIS AND OTHER PRACTICAL
TOPICS.

He spoke very highly of electrolytic epilation. For this purpose he uses the Leclanché battery. This battery has the advantage of steadiness, absence of pain and of reaction when applied to the face. He employs a needle-handle devised by Leiter, of Vienna. Its special advantage consists in the mechanical arrangement which prevents the needle from penetrating further than the desired depth.

He has had good results from electrolytic destruction of dilated bloodvessels in the face, less satisfactory results in the treatment of port-wine marks, where a permanent cure is only exceptionally attainable. Sodium ethylate is highly recommended by some for the destruction of angioma of the face, but it is in no way superior to nitric acid.

He maintained after observing two hundred cases of falling of the hair, caused by seborrhœa, that the method he recommended in 1876 gave fair results. This is the application of a ten or twenty per cent. ointment of oleum rusci crudum.

For the removal of freckles, the doctor used an ointment recommended to him by Wertheim, of Vienna. The preparation is as follows:

R.—Hydrarg. ammon. muriat.	grammes 3.75.
Magist. bismuthi.	" 3.5.
Ungt. glycerinæ	" 30.0—M.

This is to be applied in a thin layer, every other night, and in four to six weeks the result is highly satisfactory. As to the permanency of the cure he was unable to state.

In regard to the reappearance of hair after removal by electrolysis, the speaker considered it to be due to the growth of the fine hairs, whose growth was promoted by the transference to them of the nutrition which should have gone to the hairs removed.

DR. HYDE remarked that Dr. Heitzmann had touched upon the important point in the removal of hair by electrolysis. The question is not what will the result be at present, but what will it be in the future. The electrolysis produces a hyperæmia which tends to stimulate the growth of the remaining hair. He has found the rectified oleum rusci very valuable in certain diseases. He would ask, What is the test for a good crude oil?

DR. FOX said, in regard to the treatment of angioma, that he had used nitric acid, making the application in the form of small dots one-fourth to half an inch apart, with great advantage. In one case, in which a naevus occupied half the face, he used this treatment with much success.

In regard to the return of the hair after electrolysis, if the needle is carefully inserted, and, after the operation, gentle traction is sufficient to remove the hair, that hair will not return. In some cases there is a constant

increase in the downy hairs from some cause, but these are exceptional cases. He did not think that the removal of hairs increased the growth of others. In one case, that of a young woman with a strong beard, he removed, by actual count, eight thousand hairs. This process required two or three years. Since then it has been necessary to remove only a few dozen hairs.

DR. ROBINSON used a similar ointment for the removal of freckles, but its effect is only temporary. He thinks that the growth of the remaining hairs is increased by the removal of a portion.

DR. WIGGLESWORTH, for the past fifteen years, has used the following ointment, which is almost identical with that mentioned by Dr. Heitzmann:

R.—Hydrarg. ammon. parts 10
Bismuthi subnitrat. " 10
Vaseline " 100—M.

DR. DUHRING considers the oil of *rusci* valuable in seborrhœa of the scalp. The objection to it is its disagreeable odor. He has also used in chronic seborrhœa of the scalp a preparation of sulphur with satisfactory results, but he does not consider it as efficacious as tar.

DR. HARDAWAY has performed the operation of electrolysis for ten or twelve years, probably longer than any other member of the Association. He uses the irido-platinum needle, which has the advantage of being flexible, and, hence, is not likely to pass through the follicle wall. The moment the follicle is entered, there is usually an escape of sebum. One case, that of a woman with a heavy black beard, has been entirely relieved. Electrolysis with a fine needle affords a method of getting rid of freckles. The plan is to dot the needle over the surface covered by the freckle.

DR. HEITZMANN said that the percentage of recurring hairs is greater in some situations than in others. In the submaxillary region, it is greatest. The oil of *rusci* crudum is better than the rectified oil. To test it, add alcohol to a small portion of the oil and paint it on the skin; if it evaporates quickly, leaving a thick black coating, it is a good crude oil.

DR. R. W. TAYLOR, of New York, read a paper on
SYPHILITIC REINFECTION.

He first referred to the literature of the subject, and gave a brief review of the authentic cases on record, giving the names of the reporters. The number of cases previously reported is between thirty and forty. To these he added the histories of three more. A fourth case has been observed by him, but as the complete history was not prepared, it was not given.

Case I.—A barkeeper, aged 25 years. Was first seen in 1868, suffering with gonorrhœa. Three years previously he had had indolent enlargement of the lymphatic glands in the groins. Examination showed the presence of lymphatic enlargement in certain regions. Inquiry into the history showed the existence of a chancre three years before, which had been slow in healing. About two months later, he became sick, and suffered with a roseolous eruption, sore throat, falling out of the hair, and rheumatic pains, worse at night. Under treatment he improved, but afterwards exhibited a papular eruption. He was then seen by Dr. Van Buren, who pronounced the case one of syphilis, and ordered mercurial treatment. He recovered after two years, but of his

own accord continued the treatment two years longer. He then remained well until the attack of gonorrhœa.

In February, 1870, he again appeared, presenting a typical indurated chancre on the cutaneous aspect of the penis. It presented every evidence of a primary infection. Later a papular syphilide appeared over the body. There were several mucous patches on the pillars of the fauces, and the throat was red and swollen. The joints soon became the seat of nocturnal pains. The patient also presented a form of syphilitic epididymitis. Under mercurial treatment there was some improvement, but a year later there were some tertiary manifestations. By 1874 he seemed very well. During the next three years there were no evidences of syphilis, but he continued the mixed treatment.

He was again seen in the fall of 1882, when it was learned that his good health had continued, and that he was the father of a healthy child. The child was examined, and no evidence of hereditary syphilis detected.

Case II.—Had in June, 1873, a typical indurated chancre, followed by distinct secondary symptoms, which disappeared under treatment. He then passed from observation. In February, 1874, he presented several ulcerotubercular lesions on the outer aspect of the forearm. He then remained under treatment six months. In January, 1875, he had spots of thickening of the periosteum of both tibiae. He was again treated with benefit.

In June, 1878, there was a typical indurated nodule on the prepuce, from which indurated lymphatics extended to the inguinal lymphatic glands. The incubation of this sore had been about twenty days. This was followed by malaise, sore throat, swelling of the post-cervical and epitrochlear glands. Over the trunk and arms there was a fine mottling of light pink color. The patient then went to Europe, and was not seen until March, 1885, when it was learned that the symptoms had been well marked, and that he had been treated for them under several European physicians.

Case III.—Aged 41. Had had a typical indurated chancre in 1874. There had been inguinal adenitis, followed by roseola, falling off of the hair, and later by severe iritis of the right eye. He was treated with mercury.

In February, 1882, he returned with a typical hard chancre. In April he became sick, had rheumatic pains and a mixed eruption of erythematous and papular syphilide. In May, inflammation of the iris of the right eye again appeared. In 1883 he had a late secondary rash.

These cases were reported with the object of throwing some light upon the natural history of secondary infection of syphilis. In all these cases, relapsing indurations were carefully excluded.

DR. HYDE said that in his experience he had had but two cases of reinfection of syphilis, where he was perfectly sure of the fact.

DR. H. W. STELWAGON, of Philadelphia, then made some

OBSERVATIONS ON THE OLEATES.

In regard to the chemistry and preparation of the various oleates, both as to their manufacture by the direct combination of the acid with the base and by

double decomposition, almost, if not entirely, as much can be found in the English translation of Gmelin's *Handbook of Chemistry*, published 1866, as in the writings of the past several years.

Of all the oleates, those of mercury, zinc, bismuth, and lead only have a place in the treatment of diseases of the skin, and in view of their costliness, the seemingly unavoidable frequency of badly made preparations, the disagreeable oleic acid odor, and the irritation so frequently observed following their use, it is probable that of these four, the mercuric oleate is the only oleate that promises to retain a permanent value. This last is especially valuable in ringworm of the scalp, but for inunctions in the treatment of syphilis it is of doubtful utility, not comparable to blue ointment. Oleate of copper, which has been so highly recommended for ringworm of the scalp, although like all parasitocides, useful in recent cases, is of no value in chronic cases, and is far inferior to oleate of mercury and to tar and sulphur preparations.

DR. TILDEN agreed with Dr. Stelwagon, that oleates are not as useful as the ordinary ointments.

DR. WIGGLESWORTH has practically renounced all oleates except the oleates of zinc, lead, and mercury, the last of which he uses as a parasiticide.

DR. DUHRING said that his experience with these preparations is in accord with that of the reader of the paper. He had employed the oleate of copper in varying strength in thirty or forty cases of ringworm of the scalp, but it seemed to exert no influence whatever. These were, however, obstinate cases. Other methods of treatment were afterwards tried and the cases were finally cured. As to its efficiency in acute forms of ringworm he was not prepared to speak.

DR. HEITZMANN had tried the oleate of copper in chronic cases of ringworm of the scalp without any result, but in the acute cases it cures after a time. Even in such cases, however, it is not as efficient as the preparation recommended by Dr. Taylor—that is, four grains of bichloride of mercury to the ounce of tincture of myrrh or benzoin.

DR. FOX referred to the comparison between oleates and vaseline. It has been claimed that the oleic acid and animal oils are better absorbed than these other preparations. As a matter of experience, he has found that vaseline makes a better base for the majority of ointments than do the animal oils. He has also found vaseline a most soothing application to the skin. He has been disappointed in the oleates.

DR. TAYLOR said that his conclusions in regard to the oleates are in accord with those of the paper. He only uses at present the oleates of mercury and zinc, but he never relies on the oleate of mercury in the inunction treatment of syphilis when blue ointment is obtainable.

DR. HARDAWAY had almost entirely discarded the oleates. In some recent cases of ringworm the oleate of copper has seemed to be successful, but in chronic cases it entirely failed.

DR. ROHÉ said that the oleates in his hands have been unsatisfactory.

DR. STELWAGON had only to add that he had hoped that the claims made for the oleates might have greater foundation in fact, but the more he had used them the less they seemed worthy of confidence.

DR. L. N. DENSLOW, of St. Paul, then reported

A CASE OF SYPHILITIC APHASIA AND PARAPLEGIA, FOLLOWED BY DEATH, WITH AUTOPSY.

His object was simply to put on record a case in which an autopsy was obtained in early syphilitic cephalalgia. The patient was seen in consultation April 20, 1885. Two months previously the patient had begun to suffer with severe headache, worse at night. There was also a papular eruption. He acknowledged the existence of a sore six months previously. Iodide of potassium with chloral had been given. Two weeks later the patient was free from pain, but it returned one month afterwards, when the patient stopped taking medicine. Iodide of potassium was again given with the effect of relieving the pain. Aphasia and paraplegia then developed, and the patient died four days later, and within nine months of the initial lesion.

At the autopsy, the dura mater, along the superior longitudinal sinus, was thickened and adherent. There were numerous small gummata in the pia mater, situated along the right border of the longitudinal sinus, and extending back to the fissure of Sylvius. The pia mater exhibited the evidences of simple acute inflammation.

CANADA MEDICAL ASSOCIATION.

Eighteenth Annual Meeting, held at Chatham, September 2 and 3, 1885.

THE PRESIDENT, WILLIAM OSLER, M.D.,
IN THE CHAIR.

(Specially reported for THE MEDICAL NEWS.)

SURGICAL SECTION.

DR. CARSTENS, of Detroit, read a paper on

TWO CASES OF REMOVAL OF UTERINE FIBROIDS.

The first case was that of a woman aged 40, in whom uterine fibroid was diagnosed within the broad ligament, and abdominal section determined on. The operation was performed with strict antiseptic precautions. On opening the abdomen, a large tumor was discovered within the broad ligament of right side and one small one. The ovaries were very adherent and were removed. The pedicles were ligatured and the tumors taken away. There was considerable hemorrhage, and some twenty vessels had to be tied with silk and catgut. The patient for the first few days had considerable vomiting. On the fourth day she asked for lager beer, which was given, and had the effect of controlling the vomiting. The temperature up to eleventh day never reached 100° F., but then rose to 102°. This elevation was caused by a small abscess, which formed in the corner of one of the ligatures. The patient did well after this, and was discharged, cured, five weeks after the operation.

The second case was that of a married woman, aged 45, who had had enlargement of the abdomen for several years, with repeated uterine hemorrhages. Dr. Carstens, on examination, found a submucous fibroid. She was dilated with great difficulty, so a posterior incision had to be made. The tumor was enucleated and removed with an écraseur, and the wound in the cervix sewed up with silk ligatures. The patient was able to sit up in six days.

Some remarks were made on the cases narrated, in which the reader of the paper strongly insisted on the necessity of an abdominal section in many of these

cases, and said that, until the abdomen is opened, it is impossible to tell what may be the character of the operation it is necessary to perform.

In the discussion which followed, DR. GARDNER, of Montreal, said that, in incising the cervix, he preferred the bilateral incision to the posterior, and that in the cases performed by him he has avoided sewing up the wounds thus made. After removal of the tumor, he is in the habit of irrigating the uterus with two tubes, which are kept in position by stitching to the cervix. He washes out the uterus through these tubes every two hours. In certain cases he is in favor of removing the ovaries, but not in all, as in those of Mr. Lawson Tait.

DR. CARSTENS, in reply, said that section of the cervix is seldom necessary, as it can generally be sufficiently dilated to remove any ordinary tumor, and he has made a posterior incision only because it was most convenient in that particular case. If abdominal section was performed for uterine fibroid, he preferred excision of the tumor to removal of the ovaries and appendages, as by the latter method the growth of the tumor is frequently not arrested. He strongly insisted on the necessity of folding in the peritoneum after the excision of the tumor, as by this means blood is prevented from entering into the peritoneal cavity.

DR. FULTON, of Toronto, then read a paper on

SUBPERIOSTEAL AMPUTATION.

This method of operating was advocated by Walthier seventy years ago; in 1859 it was advised by Ollier, of Lyons; and lately many surgeons have recommended it. Dr. Fulton has performed many amputations recently by this method, and is strongly in favor of it, especially in amputations for diseased bones and joints. After carefully describing the operation, Dr. Fulton mentioned its advantages, the chief of which is that the cut cord of the bone is brought into contact with the tissue most suited to it; also the bone does not become adherent to the end of the stump, and the medullary canal is closed by new bone. The operation is especially suitable in cases where the contents of the medullary canal are soft and in an unhealthy condition. The only objection is the possibly too great development of osseous tissue about the end of the bone. The reader of the paper, however, had never seen any osteophytes result from the operation. Cases were related showing the advantages of the operation.

DR. MCGRAW, of Detroit, remarked that Langenbeck had performed subperitoneal amputation in 1862; but, as the case did not turn out very well, he did not continue to adopt this procedure in his amputations. Dr. McGraw believed that it is most important in amputations to draw together similar tissues, and he always sews periosteum to periosteum, muscle to muscle. In this way the wound is completely closed and no cavity left. He strongly approved of the subperiosteal method of amputating.

DR. DONALD MACLEAN, of Detroit, said that many of the so-called advances of modern surgery are of very questionable benefit, but the one recommended by the reader of the paper seemed to have much to recommend it. It is the duty of the surgeon to pay more attention to the details, not only of the operation, but of the after-treatment, and to make the path of the

surgical patient as smooth as possible by doing everything to avoid unpleasant after-results.

DR. DAVIDSON, of Toronto, thought the operation should be more practised than it now is. He thought that in performing the operation the periosteum should be reflected back before the bone is cut, thus necessitating only one division of the bone. The recurrence of osteophytes is certainly an objection to the operation.

DR. SAMPSON, of Blenheim, Ont., said that country doctors are not always able to carry out all the minute details of modern surgery, and yet got very good results. He mentioned a case in which he had lately amputated the thigh, and the patient was going about on crutches within three weeks.

DR. SHEPHERD, of Montreal, said that in his experience the results obtained in amputations performed with periosteal flaps are no better than in those performed without them; that if amputation be done with proper antiseptic precautions, union occurs by first intention, and the result is that the skin is freely movable over the end of the bone. In the last twenty major amputations he had performed, only one did not unite completely by first intention. He thought that the suturing of muscle to muscle, as recommended by Dr. McGraw, is not necessary, as the same result can be obtained by dressing the stump with pads of jute, or some other elastic substance, and keeping them in place with an evenly and firmly applied gauze bandage.

DR. SHEPHERD, of Montreal, read a paper on

EXCISION OF THE TONGUE BY SCISSORS, WITH PRELIMINARY LIGATURE OF THE LINGUAL ARTERIES.

He said that in excising the tongue for malignant disease, besides the necessity for avoiding hemorrhage, it is important that structures in the neighborhood which had become involved should be removed, and he held that the operation of excision of the tongue with preliminary ligature of the linguals facilitates the removal without adding much to the risk of the operation. Whatever operation for excision of the tongue is practised, the mortality in a given number of cases is about the same, and the method of operating seems to have less effect on the results than the after-treatment. Still, certain operations are more favorable than others as regards the recurrence of the disease, as the more completely the disease is removed the less likely is it to return. He considered that in excision of the tongue it is as important to excise diseased glands in the neck as it is to remove diseased axillary glands in extirpation of the breast. The operation was described, and the difficulties met with in ligaturing the linguals especially dwelt on. The advantages of the operation are that (1) the diseased structures, and especially the glands, are easily discovered and removed through the incisions made for ligaturing the arteries.

(2) The removal of the tongue is bloodless, and there is little fear of secondary hemorrhage.

(3) Drainage of the mouth can be more thoroughly carried out by means of the incisions in the neck.

(4) The operation is performed with few instruments, and only those possessed by every surgeon.

(5) The tongue is more completely removed by scis-

sors than in any other way, and the tissue is not bruised as when the *écraseur* is used.

Dr. Shepherd related three cases of malignant disease of the tongue with involvement of the glands of the neck (and in one case of the right tonsil), in which he had performed this operation. The after-treatment is important, and Billroth's method of stuffing the mouth with iodoform-gauze was strongly advocated by the reader of the paper.

Dr. MACLEAN, of Detroit, said that in certain cases the operation described by Dr. Shepherd was the proper one, but when there is no involvement of the glands of the neck he prefers removing the tongue with the *écraseur*. The great danger of all the operations for the removal of the tongue is septic disease of the lungs.

Dr. GRANT, of Ottawa, had listened to the paper with great interest, and intended, when a proper case presented itself, to practise the operation. He related a case of deep-seated abscess of the tongue which had lately been sent to him as one of malignant disease.

Dr. ATHERTON, of Toronto, did not think ligature of the lingual is a very simple operation. He advocated the performance of preliminary tracheotomy in excision of the tongue, as by this means the wound is kept aseptic and septic involvement of the lungs prevented. There is also less fear of hemorrhage, and greater facility in arresting it.

Dr. SHEPHERD, in reply, said that he doubted whether diseased glands in the neck could be always discovered by external manipulation, and that only in cases seen very early should the neck incisions be omitted. He could not help thinking that preliminary tracheotomy added to the risk of the operation, and, besides, it is not necessary if the after-treatment with iodoform-gauze be carried out in the way recommended by Prof. Billroth, who has had no deaths or serious complications in his last seventeen cases.

Dr. WM. GARDNER, of Montreal, now read the report of a case of

DOUBLE UTERUS WITH ATRESIA AND HÆMATOMETRA
OF THE LEFT CHAMBER.

The patient, a tall, slim, unhealthy looking maiden, *æt.* 18, was admitted to the gynecological service of the Montreal General Hospital with a history of intense periodic pain in the loins, hips, and hypogastrium. She had always been healthy till two years previous, when she began to grow rapidly and to menstruate. Catamenia always scanty; one napkin; intervals three to six week. The flow attended with moderate pain. Nine months previous to entering the hospital she began to suffer from the pains described. The pain came on each afternoon or evening, and lasted several hours, with an interval of complete relief. Had noticed for some time a swelling of the lower part of the abdomen. No bladder symptoms; appetite small; no vomiting; constipation troublesome. On palpation of abdomen there is an elongated, smooth, very firm tumor extending from the left anterior superior spine of ilium to pubes. Two smaller projections attached to the larger one extend towards the right side of the pelvis. Patient etherized for vaginal and rectal examination. Hymen entire, but perforate. Immediately on entering the vagina the finger meets a very firm, smooth, at one point slightly elastic, mass, evidently

the lower part of the hypogastric tumor described. On the left side the vaginal wall is pushed down by the tumor to near the orifice. On the right side and behind the finger can be swept around the tumor to the upper part of the pelvis. No trace of vaginal portion to be detected. The only evidence of an opening is a slight linear furrow. An aspirator trocar was introduced, when a small quantity of thick chocolate-colored blood escaped, thus clearing up the diagnosis. A bistoury was introduced and a free incision made. Fifty fluid-ounces of thick, tarry blood escaped. After partial emptying of the sac it was easy to feel the os uteri of the left patent chamber of the uterus. Double drainage-tubes were inserted within the opening and stitched to the edges, the ends protruding from the vagina. Irrigation every two hours with weak carbolyzed fluid was ordered. Within the first twenty-four hours the temperature ran up to 103°, but at the end of another day became normal. Very little pain. Patient did perfectly well for a week, but on the eighth day the tubes ulcerated out. Within twenty-four hours the temperature slowly rose to 101°. The patient was again etherized, a portion of the wall of the sac excised, the tubes again inserted, and irrigation resumed. But the temperature and pulse continued to rise. Three days later there was a rigor, followed by profuse sweating; then increase of pain, abdominal distension, left infra-mammary pain, and pleuritic friction; vomiting, at first of mucus, then of coffee ground-like fluid; death nineteen days after operation.

At the autopsy general recent peritonitis with profuse exudation of lymph. Bicornate uterus: left chamber measures one and three-quarters inches; the interior of the right chamber contained the thick menstrual blood-stained brown fluid. Right ovary somewhat enlarged, otherwise healthy. Left Fallopian sacculated, the sacculi containing the same tarry fluid. A sacculated similar collection of the size of an orange, the walls of the sac being formed by the fimbriated extremity of the tube, the broad ligament, and false membrane. Other smaller hæmatocoeles were found about the left broad ligament and left border of the uterus. The left ovary could not be distinguished.

Dr. GARDNER remarked upon the great rarity of the case. Professor Olshausen, of Halle; Dr. Galabin, of London; and Dr. John Homans, of Boston, had, however, reported exactly similar cases. The prognosis in all such malformations is grave. The treatment, so far as it went, he believed to be the best that could have been adopted, but he regretted that when the condition of the patient became so desperate, he had not opened the abdominal cavity, removed the left Fallopian tube and ovary, opened the other hæmatocoele collection, and drained the abdominal cavity. In view of certain recently published remarkable cases of acute and chronic peritonitis, similarly treated with success, he believed it possible that the patient might thus have been saved. Olshausen's case was treated by three successive tapings of the tumor through the vagina. Mild peritonitis resulted, but the patient recovered perfectly, and subsequently married and bore three children.

In Dr. Homans's case, there being doubt as to the nature of the tumor, he opened the belly, clamped and removed the closed uterine chambers containing the altered blood, together with a diseased and distended

Fallopian tube and ovary, and introduced a drain. The patient recovered. Dr. Galabin's case was treated similarly to Dr. Gardner's, but less efficiently on account of the intractability of the patient and her friends. She died within a fortnight.

DR. ROSWELL PARK, of Buffalo, reported a successful case of

EXTIRPATION OF THE LARYNX FOR MALIGNANT DISEASE,

and exhibited the specimen, as well as a model, of an artificial larynx after Gussenbauer's pattern. The case was that of a man, aged 64, who for many years had been troubled with hoarseness. For a year past he had lost his voice altogether; last fall consulted a specialist, who diagnosed papillomatous disease of the larynx undergoing cancerous degeneration. Had previously undergone several operations for removal of the papillomatous growths. He was seen by Dr. Park on the 14th of last June, and at that time tracheotomy was performed to relieve the difficulty of breathing. After some days the granulation tissue about the tracheotomy wound was so exuberant that it forced out the tube, so extirpation of the whole larynx was advised and agreed to by the patient. The operation was performed on the 28th of last June. It was very tedious, but attended with but little hemorrhage. The epiglottis was left behind, and the first ring of the trachea removed with the larynx. The wound was packed with iodoform gauze and healed rapidly. The patient was fed for the first few weeks by a tube passed through the wound. Since then he has taken all his nourishment by the mouth. He is now wearing an artificial larynx, and can swallow well and talk with ease. The removed larynx was exhibited and showed the malignant disease completely blocking up the rima glottidis. The affection was apparently confined to the larynx. Dr. Park said that, up to the present time, 94 extirpations of the larynx had been reported, and that this was the 95th, and the third extirpation that had been performed on this Continent.

DR. ATHERTON, of Toronto, then read a paper on TWO CASES OF LAPAROTOMY PERFORMED FOR UTERINE MYOMATA.

In the first case the tumor was of considerable size and intra-ligamentous. The pedicle was first transfixed with pins and compressed with a rubber bandage; the tumor was then removed by a wedge-shaped incision. The vessels were ligatured and the pins and bandage removed. The two edges of the stump were then sewed together and the abdominal wound closed with silk and catgut ligature and drained. The patient did well, recovering perfectly. There was a little suppuration about the wound. The operation was performed under the spray.

The second case was that of a young lady aged thirty-five, who had had an enlargement of the abdomen for some years, with recurrent hemorrhages. The case was recognized as one of uterine fibroid. Medical treatment proving of no avail, the patient requested that operative procedures should be undertaken for her relief. Dr. Atherton, on opening the abdomen, found a large tumor filling up the posterior part of the pelvis and firmly adherent. It was transfixed with needles and a rubber tourniquet placed below them; the adhesions were separated with the finger, and as the tumor was

freed the rubber tourniquet was pushed further down. The adhesions were very extensive, and the hemorrhage troublesome. The tumor was removed by a wedge-shaped incision, as in the former case, and the edges of the wound brought together with silk and catgut. When the rubber tourniquet was removed there was free bleeding, and the patient suffered considerably from shock after the operation. The abdomen was closed in the usual way, and a glass drainage-tube was introduced. The operation was performed under the spray, and the wound dressed with carbolyzed gauze. The patient did badly, and was in such a weak condition on the third day that transfusion was performed, and the abdomen washed out with a solution of carbolic acid, 1 to 40, but she continued to sink after a short rally, and died on the fifth day after the operation. At the autopsy gangrenous patches were found on the sigmoid flexure of the colon and the rectum. The uterine stump looked well, and there had been no hemorrhage. In the remarks made on the two cases, the reader of the paper said that in cases of uterine myoma when remedial treatment fails and oophorectomy has not caused the tumor to diminish, the removal of the growth is indicated, especially in those cases where the system of the patient is running down. He had hopes that in the future the result of operations for removal of uterine myomata would be as favorable as after ovariectomy. He suggested that before the removal of these tumors the cervix of the uterus should be closed by a preliminary operation, to prevent the entrance of germs. This would be a more scientific method than the use of iodoform suppositories or iodoform gauze.

DR. GARDNER, of Montreal, congratulated Dr. Atherton on the success of the first case, and said that everything possible had been done in the second. He thought the suggestion, made by the reader of the paper, of closing the cervix was a valuable one.

DR. ECCLES, of London, Ont., had listened with great interest to the paper, and said that the removal of part of the uterus with a myoma is a dangerous operation, and gives rise to great shock. He had once removed the uterine appendage and a fibroid in a woman aged fifty-nine. There was great hemorrhage, which was with difficulty arrested. The tumor was removed with a wire écraseur. The abdomen was cleaned, but there was free suppuration, and the wound did not close for some time. The woman eventually recovered.

DR. JENKS, of Detroit, never had a case of recovery where there were extensive adhesions in Douglas's cul-de-sac. He thought that in these operations the preparatory treatment is most important. The bowels should not only be thoroughly emptied, but tympanites should be guarded against. Ten to twenty grains of ox-gall should be given daily for a week before operation, and rhubarb and soda on alternate nights, and the night before operation the bowels should be well washed out with enemata containing ox-gall. This method had been very successful in his hands in preventing tympanites.

DR. ROSWELL PARK, of Buffalo, related a case in which he had assisted to remove a large fibroid of the uterus, and where there was great hemorrhage after the operation. The abdomen was reopened, the hemorrhage arrested, and the cavity washed out with antiseptic solutions. The patient made a good recovery.

DR. FULTON, of Toronto, said that he also had great trouble with clearing out the contents of the bowels to prevent tympanites. He thought that the method of drainage into the vagina has not been sufficiently tried, and believed it a most scientific and rational procedure.

DR. RUTHERFORD, of Chatham, now read a paper on SUPRAPUBIC URINATION.

After giving the causes of complete retention and stricture, enlarged prostate, etc., he went on to describe the suprapubic tapping with trocars, and the introduction of a soft catheter. He described four cases, in illustration, where the operation had been performed for retention following enlarged prostate. In one of the cases the patient had been comfortable for four and a half years, urinating through the suprapubic opening. In another case the patient, after urinating for some time through the artificial opening, was able afterwards to pass his water by the natural passage.

DR. BURT, of Paris, Ontario, read a paper on

INTERNAL URETHROTOMY.

He described the operation fully, and related cases in illustration. He used Maisonneuve's instrument. He said that he had never seen any evil results follow the operation, except in one case of penile stricture, where he had cut too deeply, extravasation followed. He had frequently operated most successfully in very severe cases and with permanent relief. He considered the operation to be easy of performance and safe, and that in most cases it was followed by permanent cure. He operated on many cases of stricture after this method, and found that the cutting of these anterior strictures caused the spasmodic stricture of the deep urethra. The instruments used for detecting and cutting strictures were exhibited.

DR. SHEPHERD, of Montreal, could not agree altogether with Dr. Burt's views as to the necessity of internal urethrotomy in all cases of stricture. He himself had rarely found it necessary to perform this operation, as the cases needing it were few—such as penile stricture and resistant stricture. He preferred gradual dilatation in the treatment of stricture, and considered it a much safer procedure than internal urethrotomy, as the mortality in that operation even in such skilful hands as those of Sir Henry Thompson was three per cent. He did not believe in strictures that were detected by a No. 25 sound, and thought that Otis's urethrotome showed only that the urethra was less dilatable in some parts than others; and he thought that the good results following cutting in such cases are due to the moral effect of the operation in hypochondriacs.

(To be concluded.)

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

*Thirty-fourth Annual Meeting, held at Ann Arbor,
Michigan, August 26-31, 1885.*

(Specially reported for THE MEDICAL NEWS.)

THE Thirty-fourth Annual Meeting of this Association was begun on August 26th, under the presidency of PROF. H. A. NEWTON, of New Haven. A number of papers of medical interest were presented, of which the following are abstracts:

PROF. W. R. NICHOLS, of Boston, Vice-President

delivered the Annual Address before Section C (Chemistry). He took for his subject,

CHEMISTRY IN THE SERVICE OF PUBLIC HEALTH.

It is peculiarly appropriate that chemistry should serve the public health, because many of the dangers to which public health is liable result from the industrial and other applications of chemistry itself.

In studying our surroundings let us begin with the air, considering its normal condition and the changes due to crowding of individuals and pursuit of manufacturing industries. We must also investigate the atmosphere beneath us—the ground air. The water we drink, our food and its adulterations, the clothing we wear, the houses we inhabit, the pavements we tread, all claim consideration in the light which chemistry affords.

In the service of sanitary science, chemistry has an educational office to fill. The undiscerning public do not appreciate the nature of chemical action, nor realize that it results in a complete change of properties of the reagents. Hence the carelessness of many about putting samples of water intended for analysis into clean vessels, and the prejudice against such products as glucose, because "vitriol" is used in manufacturing it, and oleomargarine because made with *aqua fortis*.

Nowhere more than in sanitary matters is a little knowledge a dangerous thing. The uninformed generally have some bugbear to make life a burden to them. Now it is *microbes* or *bacteria*; yesterday it was sewer gas, or perchance the adulteration of food.

Many of the notions regarding the detrimental effect of these things, arise from lack of knowledge. Not all microbes are deleterious. Chemistry fails to detect poison in sewerage. So-called adulterations of food are not always, perhaps not usually, unhealthful.

The investigation of existing evils is an important service to public health. We can hardly, for example, bring the charge of extravagance against the investigation of *The Lancet* into the character of the articles of food sold in London.

Chemistry may suggest practical remedies for existing evils. Factories which occasion detriment to public health may, in some cases, be suppressed, but unless recently established this course can seldom be pursued. Especially with reference to chemical trades or chemical nuisances, it is for chemistry to say what is practicable.

Of the chemists who have interested themselves in the public health we may note Lavoisier, Guyton de Morveau, Fourcroy, Berthollet, Chevreul.

More recent workers are, Frankland investigating river pollution, Schutzenberger devising methods of determining oxygen dissolved in water, Mallet studying methods of water analysis, Remsen the organic matter in the air, and Leeds the effect of charging water, used as a domestic supply, with air.

Pettenkofer approached the matter from a physiological standpoint, and his students in the Munich Laboratory have brilliantly shown how chemistry can aid both physiology and hygiene. His method of determining the amount of carbonic acid in air remains to-day substantially unaltered.

Robert Angus Smith devoted almost his entire life to the pursuit of sanitary chemistry.

Although printed directions are much better than in

former years, the problems of sanitary chemistry are not yet solved.

Numerous chemists have analyzed the atmosphere with reference to its main constituents, more recently investigating the changed relation of oxygen and nitrogen under changed barometric conditions. But while we know so much, who knows what is the bearing on the health of the community of the slight natural variations to which the atmosphere is subject? How far do they contribute to the healthfulness or so-called malaria of a locality? Although the passage of carbon monoxide through heated iron is practically of no account, who can tell us the composition and the amount of the gaseous *something*s, which, escaping, make the air of a house heated by anthracite so different from that of one heated by wood fire?

All the methods of examination of water heretofore employed are open to criticism. Some believe that the wholesomeness of water can only be decided by *biological* examination.

The *materies morbi* which convey specific disease is generally believed to be organized, and the method of analysis consists in mixing a measured volume of water with gelatine and counting the number of colonies developed after a certain time. The microbes may be further studied by high powers of the microscope, and by staining media, and their pathogenic effects tested on animals; but this is not usually done. The water is simply graded by the number of microbes found. We cannot believe that these methods will for a long time supplant chemical analysis. In order that they should do so, it must be established that the evil effects of impure water are due to them. The mere proportion of bacteria found cannot be a criterion. When biological examination of water has been placed on a firm basis it will be necessary to discover what chemical characters belong to an impure water.

Much chemical work remains to be done in the matter of the pollution of streams, especially by sewage. The natural purification of streams is admitted to be a fact, but its extent is not settled, nor the effect of different agencies. We must study the effect of oxygen in dilute solutions of the variety of chemical substances in the complex mass known as sewage.

Recent years have seen increased activity in investigating adulteration of food, and more stringent laws to prevent adulteration.

In Germany, since the law of May 14, 1879, most large cities have established laboratories for food analysis, which are at the service of the public, either gratis or nearly so. In Austria, the examinations required by the law of April 30, 1870, are carried out in existing laboratories. In France are several laboratories, that of Paris having more than twenty-five chemists, but its methods and standard have been criticised. In England the Sale of Food and Drugs Act (1875, amended 1880) called for appointment of public analysts throughout the kingdom.

In this country laws against adulteration exist in several States, and in New York, Massachusetts, and New Jersey they have been made more stringent on account of the popular feeling in 1878-79. No laboratories have been established, however.

In this country individuals seldom care to prosecute, and the laws must be enforced by official inspection.

Existing laboratories are probably sufficient, and it is advantageous to secure coöperation among chemists as is now done in New York. There is an American Society of Public Analysts meeting in New York and Brooklyn.

The chemist has to solve many problems of special sanitary importance. The greater bulk of this work is done in Germany.

One of the first independent laboratories established for the investigation of agricultural, pharmaceutical, and physiological chemistry is at Dresden, under Dr. H. Flack, and was opened in January, 1871. The expenses are borne by the State. Among the subjects investigated are the various methods of water and food analysis, methods of rendering combustible material un-inflammable, the composition of the ground water and the ground air in various localities, including cemeteries, the composition of the air in buried coffins, or in the neighboring ground, and the character of the water draining therefrom, the porosity of soils to water and air, the pollution of streams, the effect of arsenical paper hangings; studies have also been made on disinfection and disinfectants, on natural and artificial ventilation, and on the ventilation of particular buildings. In our own country many such matters have also been studied. The State Board of Massachusetts led the way; others have followed.

The laboratory of Berlin deserves mention, being devoted to the solution of various hygienic problems.

The laboratory of the Observatory of Montsouris, in Paris, closes this incomplete list. It was established in 1871, for the study, principally, of meteorology in its bearing on agriculture and hygiene. Regular chemical determinations are made of the ozone, carbonic acid, and ammoniacal and organic nitrogen in the air; in the meteoric waters. Estimations are made of the ammoniacal and organic nitrogen, of the nitrogen in the form of nitrites and nitrates, and of the organic matter oxidizable by permanganate of potash.

An essential preparation for this work is thorough knowledge of chemistry and physics. The Massachusetts Institute of Technology has equipped a laboratory for special study in reference to sanitary chemistry.

Although we use the term "sanitary" chemistry, we must not lose sight of the fact that the underlying principles are the same as in all chemistry.

Courses of sanitary engineering are being opened in various technical schools. It would be well to give students in these courses some instruction in chemistry, with special applications, in order that they may have an intelligent idea of what questions to submit to the chemist, and how to understand the results.

(To be concluded.)

NEWS ITEMS.

NEW YORK.

(From our Special Correspondent.)

THE CONCOURS SYSTEM is about to be tried in this city, its inauguration being at the College of Physicians and Surgeons, where it is proposed that an adjunct to the Professor of Surgery shall be appointed. Three of the brightest young surgeons of this city, Drs. W. T. Bull, Hall, and Halstead, it is said, will be competitors.

THE ADVERTISING ABUSE that THE NEWS has editorially noticed and condemned, has again cropped out in the form of a highly colored report of a "new and terrible operation performed at the Charity Hospital." The procedure was simply abdominal section for cancer "weighing twelve ounces." The most minute details of the operation were published by several newspapers, and pains must have been taken to secure the attendance of their various reporters. It is only a few months ago that one individual secured a puff upon the merits of a revolving knife, and if this thing goes on we shall rival the patent medicine men in our methods.

THE CARTWRIGHT LECTURES.—It is reported that the coming Cartwright Lectures will be delivered by Dr. Osler. The high character of this gentleman's London lectures presages a great improvement over anything we have had here before.

THE HOBOKEN DRUGGIST'S MISTAKE.—The occurrence of a druggist's mistake in Hoboken, whereby two young women lost their lives through the substitution of ten grains of the sulphate of morphine for quinine, has given rise to a great deal of newspaper discussion. Several druggists who have been interviewed call attention to the looseness of prescription writing and the tendency to abbreviations. Though it seems, upon the part of physicians, almost too much to expect an enforced preliminary classical course in these days when men study medicine as they would plumbing, it certainly should be required that they be made to acquire sufficient knowledge of Latin to order medicines. Perhaps the labor-saving formulæ of prepared pills and other medicines are responsible for this.

HOW THE DOCTORS TAKE THEIR HOLIDAY.—The number of medical men who have passed their summer in Europe is not so large as usual. Drs. Agnew, Otis, and a few others have established a little summer medical colony at Montauk Point, Drs. Jacobi and Gillette go to Lake George, Dr. Thomas to Southampton, Drs. Cleveland and Robinson to Newport, while Drs. Dawson, Loring, McLane Hamilton, and others, take to their yachts. Drs. Sands and Peabody go to Halifax, and a number of the elderly men stay in town.

SMALLPOX IN MONTREAL.—There were twelve deaths from smallpox in Montreal on Saturday, fourteen on Sunday, and twelve on Monday.

The Central Provincial Board of Health met on Monday at Montreal, and decided to issue circulars to all the municipalities in the Province, ordering them at once to establish local boards of health. The representatives of the Montreal City Council announced that it was the intention of that body to erect a permanent contagion hospital containing 200 beds. In the meantime a temporary ward would be begun on Tuesday, in connection with the present smallpox hospital, to contain fifty patients. This brings its capacity up to 119 beds.

Ten physicians will be appointed at once to begin house-to-house vaccination.

The officers of the New Hampshire State Board of Health, who have returned from Canada, express the highest dissatisfaction with the inefficiency displayed by the City Government of Montreal in its dealings with the smallpox epidemic. They say that immediate action must be taken if New England is to be spared from the

disease. The running of passenger cars through from Montreal by way of Concord was stopped on Monday, and all through passengers will be transferred at or near the boundary line. The subject of stopping all trains beyond the line is said to be under consideration by railway officials.

President Connor, of the State Board of Health, holds that the United States is the only power that can establish an effectual quarantine between Canada and New England.

PUBLIC OPINION ON THE CONGRESS OUTLOOK.—The outlook for the Congress is critical, and the honor of the medical profession of the United States is involved in the success of that Congress. Therefore, those who have been intrusted with the preparation for it should weigh well every official act of theirs. Too many mistakes have already been made. The present Committee cannot afford to add to that number, any more than the profession at large can afford to have it done. Broad, liberal ground should be taken by the Committee. It has the experience of the eight preceding congresses to guide it. Surely the experience gained in them should greatly aid the present committee, and the advantages of that experience should not be lost or ignored.

In the organization of the Congress, the same rules should govern in the next that have obtained in the past. No distinction should be made between the foreign and American members. The fact should be distinctly kept prominent that it is not a delegated body. It has not been in the past; there is no valid reason why there should be any effort to make the next one such. There should not be two or more classes of members. All must meet on the same plane—with equal privileges—equal duties—and equal responsibilities. Let all local ethical questions be eliminated. The foreign representatives expect and demand this, and such is their right. There may be honest differences of opinion, in our own country, on certain points of principle and policy, but there can be no valid reason for thrusting them, or their effects, upon foreigners who may come here. Sight should not be lost of the fact that science and humanity are the objects for which these congresses convene, and that all matters of selfishness and partisanship should be subordinated thereto.

As our faith, as a profession, was pledged, when our invitation was accepted, to do all in our power to make a success of the Congress, we cannot do less. Everything that might conflict therewith, and diminish the prospect of such success, must be kept in abeyance.

For the official positions—whether the most prominent or the subordinate ones—only representative men should be selected. Much of the success or failure of the Congress will depend upon the wisdom and the fairness of the action of the committee at its coming meeting. We hope that it will be such that there may be no occasion for vain regret.—*Chicago Medical Journal and Examiner*, September.

After the utter failure of its efforts at Chicago, and in view of the disturbance its action has brought about, we have felt that this Committee was in duty bound to decline any further participation in the work of reorganization of the Congress. Having so signally failed at Chicago we are unable to understand upon what ground it can hope to be more successful in its future undertak-

ings. From a circular which has recently come into our possession we fully recognize the part which this new Committee will attempt to perform. Bracing itself up under the issues of the "Code" this Committee will urge the reorganization of the Congress upon this platform.

But after all, this cry of the "Code" has a tamer significance than a casual observation would indicate. We have already noticed the fact that the "Code" issue has been repudiated by the very best scientific minds in this country and in Europe. The present Committee has caught on to this issue as a possible popular wave to ride into high official position and authority.

Indeed, the whole outlook for the Congress is utterly ridiculous and absurd. The profession in this country may well cry shame over its present humiliation. Who can look on and not blush over such an arrangement as is proposed by our National Medical Association in honor of a great and influential body of scientific workers?—*Maryland Medical Journal*, September 5, 1885.

PORTRAITS OF DECEASED SURGEON-GENERALS.—Judge Maynard, Second Comptroller of the Treasury, in passing on the accounts of J. O. Skinner, Assistant Surgeon and Acting Medical Storekeeper, U. S. A., has disallowed three vouchers, aggregating \$505, for portraits of deceased Surgeon-Generals of the army, with their frames, which were certified by Surgeon Huntington, Curator of the Army Medical Museum, and approved by the Surgeon-General. He says that without regard to any irregularities which may exist in the method of making these purchases, he does not think the accounts for them can be allowed on the proofs presented.

It is sought, he says, to make them chargeable to the Medical Museum appropriation for 1883, under the following provision: "For the Army Medical Museum and for medical and other works for the library of the Surgeon-General's office, \$10,000." He holds that the money thus appropriated can only be lawfully expended for works relating to medical science or illustrative of the anatomy of the human system, or which will be serviceable in the treatment of diseases, and adds that, "if it is desirable that the walls of the Museum should be adorned with the portraits of the distinguished men who from time to time have presided over the administration of the Medical Department, Congress should provide for such an expenditure in clear and unmistakable terms.

"The Medical Department is but a Bureau of the War Department, and if money, which was designed for the maintenance of the Medical Museum, in the absence of express authority can be applied to purchases of this kind, then no objection could be successfully interposed to the expenditure of this appropriation for the purchase of portraits of the different Secretaries who have presided over the War Department, or of the Generals of the army, and of the President, who is its Commander-in-Chief. It is the safer rule to limit all expenditures under such appropriations to the specific object for which they were intended, and any transgression of the rule might lead to the establishment of a vicious precedent."

NOTES AND QUERIES.

THE AMERICAN BIBLIOGRAPHY OF PHYSIOLOGICAL OPTICS.

PROF. H. D. NOYES, of New York, sends for publication the following letter from Dr. Koenig, assistant of Professor Helmholtz, in Berlin, which opens the way to American authors to receive due recognition in the pages of the book which is the great classic on the subject of physiological optics.

BERLIN INSTITUTE OF PHYSICS, August 6, 1885.

DEAR DR. NOYES: If I remember rightly, I told you at our last meeting, which I recollect with great pleasure, that a new edition of the *Physiologische Optik* of Professor Helmholtz was being prepared. At present the work of printing has begun. The bibliography will be printed last, and in a separate chapter. It is to be enlarged, and to be brought up to the present time. At the request of Professor Helmholtz, I have taken charge of this part of the work. On account of the enormous increase of the literature of physiology during the last twenty-five years, it is very difficult to make it complete. In order to be as thorough as possible, I have published a request asking authors to favor me with a notice of their publications relating to physiological optics. This has appeared in several French and German ophthalmological journals. Would you have the kindness to procure the insertion of a similar call in some of your American journals? My address, to which letters may be sent, is Dr. Arthur Koenig, No. 16 Weire Wilhelm Strasse, Berlin.

Any communications on the above subject will place me under great obligations.

Most sincerely yours,

ARTHUR KOENIG.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT U. S. ARMY, FROM SEPTEMBER 1, 1885, TO SEPTEMBER 7, 1885.

MAGRUDER, D. L., *Lieutenant-Colonel and Surgeon*.—Granted leave of absence for fifteen days.—S. O. 201, A. G. O., September 3, 1885.

MIDDLETON, PASSMORE, *Major and Surgeon*.—Assigned to duty as Attending Surgeon at these headquarters, vice Major J. V. D. Middleton, Surgeon, hereby relieved.—S. O. 131, Department of the Missouri, August 28, 1885.

GIRARD, ALFRED C., *Captain and Assistant Surgeon*.—Assigned to duty as Post Surgeon at Boise Barracks, Idaho Territory.—S. O. 142, Department of the Columbia, August 22, 1885.

KANE, JOHN J., *Captain and Assistant Surgeon*.—Upon expiration of his present leave of absence, to be relieved from duty at Willet's Point, New York Harbor, and to report to Commanding General Department of Texas for assignment to duty.—S. O. 201, A. G. O., September 3, 1885.

BANISTER, JOHN M., *Captain and Assistant Surgeon*.—Assigned to temporary duty at Camp of Competitors at Creedmoor, N. Y., arriving not later than September 4, 1885.—S. O. 58, Division of the Atlantic, August 31, 1885.

RICHARDS, CHARLES, *Captain and Assistant Surgeon*.—To be relieved from duty in Department of the East, and to report to the Commanding Officer at Willet's Point, N. Y., for duty at that station.—S. O. 201, C. S., A. G. O.

KENDALL, WM. P., *First Lieutenant and Assistant Surgeon* (recently appointed).—To report in person to the Commanding General Department of California, for assignment to duty.—S. O. 201, A. G. O., September 3, 1885.

OFFICIAL LIST OF CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY DURING THE WEEK ENDING SEPTEMBER 5, 1885.

STEWART, HENRY, *Surgeon*.—Leave of absence extended one year from October 15th, with permission to remain abroad.

STEELE, JOHN M., *Passed Assistant Surgeon*.—Detached September 1st from Constellation, and report for duty at Naval Academy, Annapolis, Md.

BRIGHT, GEO. A., *Surgeon*.—Detached Sep. 1st from Constellation and await orders.

DICKSON, S. H., *Passed Assistant Surgeon*.—Ordered to Naval Academy, Annapolis, Md., as relief of Passed Assistant Surgeon A. A. Austin.

FITTS, HENRY B., *Assistant Surgeon*.—Detached from Coast Survey Steamer "Gedney" and wait orders.

AUSTIN, A. A., *Passed Assistant Surgeon*.—Detached from Naval Academy, Annapolis, Md., and ordered to Coast Survey Steamer "Gedney" to relieve Assistant Surgeon H. B. Fitts.